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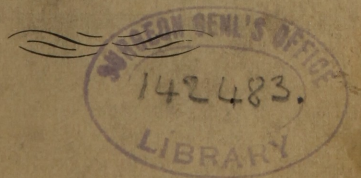
Stray Papers

— ON —

CEREBRAL SUBJECTS,

By WM. B. FLETCHER, M. D.,

INDIANAPOLIS, IND.



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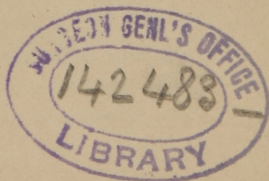
INDIANAPOLIS, IND.,

PROFESSOR OF DISEASES OF THE MIND IN CENTRAL COLLEGE OF
PHYSICIANS AND SURGEONS OF INDIANA, MEMBER OF AMERI-
CAN MEDICAL ASSOCIATION, VICE PRES. FOR IND. OF
N. Y. MEDICO-LEGAL SOCIETY, EX-PRES. MAR-
ION CO. MED. SOCIETY, ETC., ETC.

The excuse for issuing these papers is that they were printed at various times in different medical journals, and frequently I had calls for one or more of them by my medical friends, which I was unable to supply.

Cottman, Printer.

1892.



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1892

COMMENTS ON INSANITY AND LUNACY LAWS, For Popular Consideration.

A Paper read before the Twelfth Annual Conference of Charities and
Correction, Washington, D. C., June 8, 1885.

THE observations and suggestions here presented are derived from a careful study of the history of the care of the insane in Indiana; also from a comparison of the various reports and the laws governing insanity inquests throughout the United States.

In 1870 the number of insane in the United States was estimated at 37,432; our last census puts the total insane at 91,997, or one to every 543, or 1,834 per million. At this time there are perhaps near a hundred thousand who would be classed as insane.

Thirty-six years ago the first annual report of the Indiana Hospital for the Insane had 104 patients under treatment, and gave the proportion in the State at one in every 1,300. Now we have a daily average of 1,450, and it is believed there are as many more maintained at private charge, or confined in jails or county poor-houses, and that the proportion has increased from one in 1,300 to one in less than 500.

In thirty-five years Indiana has made rapid advances in population, wealth and intelligence; among the most uncultivated then, it now ranks among the first in our

Union, and has, or appears to have, more than doubled the number of her insane.

With such appalling facts before us, it suggests these questions: Are the causes of this increased tendency to mental disease real or apparent? What are the real and what are the apparent causes? May these causes be held in check or diminished?

The most notable increase of insanity is co-incident with the introduction of railroads into our State, promoting the influx of European emigration, and giving us the same conditions which had before existed only along the seaboard.

It has long been recognized that the United States is 'the garbage box of Europe, into which is thrown the useless pauper, deformed, blind, deaf, epileptic and criminal, who, like noxious weeds, are uprooted and cast upon us, where a better soil exists. Thus fertilized and nourished by an almost profligate charity, they again take root, and, by transplanting, gain the strength of at least a superior virility.

Heredity of mental and nervous disease can be traced directly through more than one-half the cases; and were it possible to get at the facts, undoubtedly a larger number would be added to the list.

It is a marked defect in our civilization, an inconsistency in our civil law, a blot on the bright page of Christian intelligence, a retrograde from the better philosophy of ancient Greece, that marriages may take place among the blind, deaf, mute and insane. Verily, we may not expect to "gather grapes from thorns, nor figs from thistles." So long as the elements of heredity from foreign sources and home breeding are almost cultivated

by society and misguided benevolence, we can not look to an abatement of hereditary disease. The hereditary tendency, with increase of wealth and luxury which induces physical degeneracy, robs man of his muscular and digestive superiority, heightens his nervous susceptibilities, and develops those germs so remotely and obscurely planted in his physical organism, and those who are to follow him in his generation.

In the Indiana Hospital for the Insane are many instances where various members of a family have been inmates since the opening of the Institution, the same names occurring year after year, father and mother who had been there sending sons and daughters, and, in two instances, grand-children. There are several families now represented by two and three members, and two instances in which brothers, (in one case twins,) became insane and were admitted at the same time. This is only a picture of what would be found in every hospital in America, and goes far to show that our institutions are not only for treatment, but in some respects for the breeding of lunatics—"nurseries for, and manufactories of madness; reservoirs of lunacy from which is issued from time to time a sufficient supply for perpetuating and extending the formidable disease." The apparent increase of insanity may be looked for in some degree to increased hospital capacity, with all the various and improved means to preserve the life of the chronic insane, whose ranks would otherwise be materially thinned from various kinds of exposure, privation and suicide. They are now well fed, well clothed, and given all the conditions to preserve them to more than usual old age.

Another cause of the apparent increase of insanity is

in the cultivation of its study by specialists and popular change of opinion regarding the treatment of lunacy. Fifty years ago, to be sent to a hospital for the insane was little less of a social disgrace than service in a penitentiary; now, a residence in a modern institution is regarded with as little sense of shame as a six weeks' residence on the Government Reservation at Hot Springs, for rheumatism. The man or woman who fifty years ago would have been simply regarded as peculiar, odd or eccentric, and permitted, when harmless, to run at large, is now denominated insane, and supposed to be susceptible of treatment. Besides, the great, growing, busy American life will no longer be annoyed by peculiar people; we have no patience with the "crank." The idea that prevailed in Egypt, ancient Greece and Rome, and is still prevalent among many simple, ignorant folk in various parts of the world, that insanity is but the manifestation of the Deity or the Oracles who are to be respected and revered, has long since died away. To-day, the Twelve with their Master would barely escape a modern commission of lunacy experts; Joan d'Arc and John Bunyan would surely grace the wards of an asylum for the insane, to say nothing of the thousands of remarkable persons noted in history who were not regarded insane in their time, but who would, if now gathered together, immensely swell the statistics of lunacy.

As to the increased use of alcoholic beverages and narcotics increasing insanity, that is a difficult question to discuss. There are places where the proportion of drunkards to the thousand is on the decrease, but where insanity is on the increase. The present view of the 1,450 patients in the Indiana Hospital for the Insane will not

show drunkenness, as an attributed cause, in more than a dozen persons. In most of these the element of heredity predominates, and it is as likely that the developed insanity was the cause of the loss of moral sense and will power, which suggested the constant or periodic stimulation which made the drunkard, as it was that drink caused the insanity. And I may say the same regarding self-abuse in either sex. Where it exists it is because of some congenital deformity of the superior organs of the mind on one hand, or developed disease therein on the other, rather than an induced condition from purely animal appetite. The abuse may be regarded as a symptom of the disease rather than a cause of the insanity. How much insanity in the world may be traced indirectly to alcoholic poisoning is yet more difficult to comprehend. When the physiologist has experimented on the brain of a healthy animal, to induce epilepsy, that animal continues epileptic and begets epileptic progeny. An established law is, that induced conditions may become transmitted; if the brain of the progenitor has been poisoned by alcohol or narcotics it is not unlikely induced disease of that organ would descend to the children.

There is no doubt that a very large number of cases in hospital arise from venereal diseases, both direct and inherited. Observation upon but a few thousand patients convinces me that with men and women who present well-formed heads and well proportioned bodies, and have had the advantages of educations, that syphilitic disease of the cranium, membranes of the brain and spinal cord, is a more frequent cause of mental disease and general paralysis than alcohol and narcotics; and its poison extends and descends longer, perhaps, through

many generations than any other disease.

There is no doubt that a comparison of conditions and statistics of development will show that scrofulous disease and insanity have kept pace with one another, and that there is a most intimate relation between the two. In a large number of cases the insanity is but the symptom of tubercle developing within the cranium either independent or co-existent with its development in the lungs.

The deposit of tubercular masses along the most delicate channels for the blood, (the capillaries), diminishes the amount of fluid to the part, and either stops or deranges the action of that particular collection of cells, throwing out of gear, so to speak, the tender mechanism of the brain—just as the wheels of the mill would derange the action of the machinery if the quantity of water that drives it were diminished or admitted irregularly; and examination frequently shows a substance not unlike tubercle in the larger brain-cells.

Regarding our system of education being an exciting cause of insanity, what it may be in other States I can not say, but in Indiana the evidence is to the contrary, the great majority of insane coming from the ranks of the poor, where Nature had given them but little store of brain to begin with, and Art had done less. They largely represent a class that can be taught little save the cruder forms of manual labor. Most of our insane originally had a "plentiful lack of wit." Over-study and too much learning has in no instance, that I can trace, disturbed the equilibrium of the brain. Festus, regarding St. Paul, held this vulgar error, "That too much learning had made him mad." How can the ethereal and incorporeal

store of knowledge become a physical weight and turn out an encumbrance, exercising undue pressure on the human brain? Mental acquirement can not be described as a body ponderous. The more learned we grow, the better organized is the mind, the more prejudice we shake off. I believe an education would have prevented many from becoming insane.

In Indiana hospital reports of many years ago, a large number of cases were registered as being caused by religious excitement, Millerism, spirit-rappings, etc. It is interesting to note now-a-days that these causes are rarely referred to. The probabilities are that insanity which starts out in so-called religious excitement, and manifests itself by mingling prayer, blasphemous ravings and obscene utterances, or by abject melancholy of despair, shows mental weakness and pre-existing disease, excited by attention being strongly attracted to religious subjects. One writer has well said that more mad people become religious, (using the word in its phenomenal sense), than religionists go mad. The so-called religious crank is not a crank because he is religious, neither did religion make him a crank.

Among the real causes of insanity that we may combat are :

FIRST. The emigration to our shore of the weak-minded, diseased paupers from Europe. This is now receiving popular attention, and wholesome laws have been made, as I understand, largely through the influence of this association.

SECOND. Prohibiting the marriage of that class of persons who, we know, can only breed those mental and bodily defects which we spend millions to cure. If a

person can be declared insane and deprived of liberty under the law on the certificate of one or more physicians, why not, upon equally good authority, deprive others, known unfitted, the rights of marriage? Good laws might do much, and good teaching more. The subject is left too much in the hands of specialists or of medical men, whereas the great laws of biology, and the effect of the violation of physiological laws should be thoroughly inculcated in the minds of the masses. Let it be taught that insanity, consumption, venereal disease, etc., are almost sure to develop in the progeny.

THIRD. Physicians should be better qualified in the detection, prevention and management of mental disease, and be more ready to discern between disagreeable eccentricity and insanity that requires hospital treatment. The fact that a man has a diploma, or is called "Doctor," in most of the States gives little significance of his knowledge of medicine, and particularly psychology. The readiness with which some of them recklessly and ignorantly sign a paper for commitment of a person as insane with whom they have had but a few minutes acquaintance, or none at all, for a few dollars in fees, is shown on the official records of various institutions. I would strongly recommend that there be a plan devised where properly qualified Boards of Examiners be appointed in each county or Congressional district, to examine all cases of alleged insanity by taking the testimony of the family physician, with that of other witnesses, and that said Board should have no interest in the number of inquests held, but be paid by the State an annual compensation.

FOURTH. A means of checking at least the apparent

increase of insanity is to render the means of admission into lunatic asylums more difficult. Persons should not be cared for at public charge who have the means to maintain themselves. To furnish a home for all adjudged insane, free of expense, is to offer a premium on cultivation of the disease, besides robbing the people of that feeling of personal pride and honor which should protect them from such self-degradation. All the laws pertaining to commitment of persons alleged insane should be carefully revised in most of the States. A fair trial should be accorded such; they should be brought before a jury, or a jury brought to them; have the cause of their arraignment fully explained, and no deception of any kind should be practiced. I can not conceive of possible injury to an insane person from being informed of all the facts in the case. If they are not comprehended it matters little; and I know of much injury to patients who were hoodwinked into hospitals by most cruel deception. Says one writer, commenting on the laws of Pennsylvania sixteen years ago: "The whole subject is worthy of official notice and reform, for while the law remains unchanged every man should 'take a bond of fate' against his physician, not knowing but that to-morrow some enemy, or some heir covetous of his generous estate, may summon the doctor to consign him to a mad-house." There should be some statutory regulation as to the degree of aberration of mind justifying detention. The peevishness of adolescence, the peculiarity and petulance of old age should never be regarded as indications for removal from home and freedom to a hospital. While speaking of removal from home to hospital, I desire in unqualified terms to con-

demn the cruel, cowardly and inhuman practice of having females, who are adjudged insane, arrested by a Sheriff, who, for the sake of swelling fees, may take two or three men along to convey the unfortunate condemned a journey of perhaps a day or two's duration, to place her in a hospital. Such is the custom in many States. I have seen many a woman, whose main symptom of insanity was timidity, brought to the hospital raving maniacs—brought filthy, ready to commit suicide because of the forced degradation. Many of these had never been from home and knew none of the conveniences of cars or hotels, and having only the company of one or two strange men, they were sad spectacles of man's neglect and cupidity. The removal of insane women should be by well trained female attendants, under order of the Superintendent.

The present mode of insanity inquests, (so-called), in many States is a mere farce—the certificate of a physician or two, the word of one person perhaps, a justice or two, all interested in fees, who frequently do not view the person to be condemned, save at a distance. Fully one-half the patients received into the Indiana Hospital for the Insane are committed without their having any knowledge whatever of the proceedings.

The Lettres de Cachet, which were so convenient to hide away enemies in the Bastille, unheard, were no more cruel. It is the worst oppression which is done under cover of law. Many a simple-minded woman at work about her house, or man in his shop or field, is surprised by the entrance of an officer, who, without explanation, and sometimes with great force, shackles the unfortunate and conveys them beyond the bars, where liberty is as

much shut out as from the jails and penitentiaries. What murderer, horse-thief or petty criminal, what vile bawd upon the streets could be thus arrested and without a hearing be consigned to a prison? It is surely a violation of the laws of God, and of the Magna Charta upon which our law of human liberty is based. I would not say that many instances occur where the person so arrested is not peculiar, or perhaps insane; but one thing is certain—that if they are not, they have no chance whatever of arranging their business affairs, or of disproving the alleged condition, until after weeks or months of observation by the physicians or attendants upon a hospital ward. Sometimes I fear that upon the feeble woman or desponding man, such unjust incarceration, such sudden transition from a lifetime home, or children, friends and associates to the wards of a lunatic asylum, crowded with its queer and uncouth population, ends in creating the condition we seek to cure.

It is of almost daily occurrence that some woman of devout life, pure-minded and simple, who has scarcely been from the quiet of a country neighborhood, is arrested, hurried away, and thrown among associates whose vulgar and obscene language would put to blush the dames of Billingsgate, whose profanity is so voluminous and original it would make the most strong and wicked man tremble. What effect such transformation would have we can only conceive when we imagine that poor woman to be our mother, our wife, sister or daughter. I am confident that a careful scrutiny of many of the hospitals of America would show that imprisonment for peculiarity of simple-minded, innocent persons is a very common thing, and is a greater outrage than ever im-

prisonment for debt could have been.

The daily press teems with sensational articles severely rating medical superintendents for having kept some one not insane as a prisoner for weeks, months or years; but in reality the righteous indignation should be vented upon those law-makers who make or permit to stand unrepealed upon the statute books, laws, which for absolute injustice, cruelty and heart-breaking outrage, can not be found in any other land. I am glad to stand here in the heart of our Government, before the citizen, philanthropist and political economist, and point with sorrow and with scorn to the insanity laws that disgrace so many of our States, and implore you to aid in reforming them. I point with pride to the fact that every great reform in the humane treatment of the insane has sprung from Medical Superintendents of Insane Hospitals, and the only surprise is that so little harm has occurred, when we see with what unlimited power they are entrusted after a patient is committed to their care. But Superintendents do not make the laws, and combined efforts will be required to do that which will be resisted by those whose revenues depend on the loose methods now prevalent.

Finally, I believe the number of our insane may be reduced by improved methods of treatment. The day when hospitals were mere keeps for lunatics, and when mechanical restraints were largely used, has passed by. The value of teaching is becoming recognized as of paramount value in the treatment of many forms of insanity. Kindergartens are being established, and well arranged schools for the more advanced, and workshops for various kinds of manual labor are now being generally introduced, and should meet with your encouragement.

The greatest drawback to the treatment of insane persons is the difficulty of obtaining well-qualified attendants; and attendants may be regarded as the prime factor in the treatment of insanity. It is a misfortune that in many States the laws grant to the Board of Trustees the power limiting the Superintendent in the number of attendants, fixing their wages, and sometimes even their selection. This leads to the employment of what I would term a deciduous class of attendants, who are shed once or twice a year. They seek the place because they are young, or because they are old, or because they are useless to themselves or others, or they want to be attendants till they can get something else, or, last but not most common, because they or their friends are of great value to the party in power.

Of all curses that can be thrust upon an institution for the insane—of all cankers, blights and cancerous growths that eat out the vitality of good purpose in the treatment of lunatics—it is the employe whose sole qualification is his politics. I know of no one thing which this convention could do that would so largely aid in the treatment of the insane, as the encouragement of the establishment of a National School for the training of attendants, who have taken as a life vocation the care of the insane. It is a profession of itself, and should demand a high degree of intellect and cultivation, and should be paid for accordingly. I would strongly recommend the substitution of a healthy middle-aged man and wife for the young male attendants upon the men's wards; they have a good effect in adding interest, kindness and homelike comfort to the place. I also strongly recommend female physicians in all wards for women.

The abolition of beer, wine or alcoholic beverages from lunatic hospitals I regard as desirable, for, like mechanical restraints, it is far more apt to be abused than used to any good purpose.

In these complaints and suggestions, I would close as the Indians did in Councils with the whites, when they implored them for their rights. Each chief making his complaint or forwarding his request, added: "and in assurance of our good heart and faith in this Council, I present this belt of wampum." This belt, though given by my own tribe, is composed of beads made from the heart's blood of thousands, woven by tremulous, weary fingers, on a fabric of bad laws, vilely executed. I present it to this Council in good faith, hoping it will seal a compact that the Council fires shall not die out, nor the pipe of peace be extinguished until some of the wrongs to the insane, and to those wrongfully so adjudged, may be righted.

RESTRAINT OR NON-RESTRAINT

— IN THE —

TREATMENT OF THE INSANE.

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THIS subject is now exciting commendable interest on the part of the public as well as considerable discussion on the part of those who have direct control of hospitals and asylums for the treatment and care of those who suffer from mental disease.

Prior to 1790 it was the custom to confine all insane persons in the so-called mad-houses, where little was attempted in the way of treatment, and less done to render the unfortunate one comfortable. It was cheaper to keep them tied to a post or chained to a ring in the floor than it was to have attendants watch them. Nothing was done for personal comfort. The unfortunate wretch of dethroned reason lived in filth and rags, confined by manacles upon the feet, wrists, waist or neck, their agonizing cries only silenced by the lash.

This was less than a hundred years ago. At that time Pinel, *Medecin en Chef de la Salpetriere*, established what is now called the system of non-restraint, which has spread slowly over Europe and finally to America.

What Robert Pinel practiced was soon taken up by Esqirral and other distinguished French physicians. They did not do away with every form of restraint, but abolished all forms of bodily bondage that were painful

or disgraceful in kind. But they did more than this: they remodelled the abodes of the insane, introducing methods of decent cleanliness; abundant, comfortable clothing took the place of filthy rags, and a full, generous, varied diet the place of the scanty, half-cooked food formerly furnished.

It was not alone due to individual effort; it was the spirit of the age—the age of a reasonable reformation. “That spirit which burned witches—would tie to the stake and heap fagots about the unbeliever—would as readily punish with thongs, dungeons and starvation the helpless lunatic of its times.”

Why the abolishing of restraints has proceeded so slowly in the United States is difficult to comprehend. It has been suggested that in England it is easy to abolish restraints because “the climate is quieting; that of France exhilarating, Germany exasperating, and that of America cosmopolitan and changeable.” It is true that the English are slow-going; the French gay and passionate; the Germans phlegmatic, stubborn and irascible, while the Americans are all things combined, so far as temperaments and characteristics are concerned, drawing their natural tendencies from such varied ancestry. While we must acknowledge that some temperaments are more easily controlled than others, yet the same influences brought to bear control them. Manifest loving kindness, tenderness and sympathy affect all mankind, without regard to climate or race, just as do heat and cold, hunger and thirst. It is more likely that the tardiness with which restraints have been abolished from American hospitals and asylums is that a misguided economy on the part of those who provide for the keeping of the

insane has so limited appropriations for their maintenance that it was not possible for the Medical Superintendent to give the patients that liberty which he knew they required for health and comfort.

In the United States insane hospitals are, almost without exception, dependent upon appropriations made by the State Legislatures, and the party in power recognizing the fact that their success depends upon showing to the tax-payers an economical administration of the public institutions, they thoughtlessly compel a cheapening of labor in the hospitals, it being found that one attendant can take care of twenty insane persons if they are tied securely to the restraint chairs or locked in cribs, and the tendency is to save the expense of an extra attendant by such means. If a patient tears clothing or breaks windows, it is regarded economy to keep the patient in handcuffs, (called "wristlets"), or camisoles, (a "straight-jacket"), rather than to pay good wages to an intelligent, well-qualified attendant who by kind and gentle ways could soon teach the patient self-control or divert the unusual excitement of the insane mind into more quiet channels.

When our legislative committees on benevolent institutions are chosen from honest philanthropists, who desire as far as possible the amelioration of those suffering from insanity, rather than because of their most stringent views of economy, medical superintendents of insane hospitals will have better opportunity of carrying out the humane plan of non-restraint treatment.

Restraints used in hospitals for the insane are of two kinds—chemical and mechanical—the former including everything administered to quiet the will to execute; the

latter, everything to prevent the patient executing his will. The two restraints differ in their results in this: The chemical prevents the desire to act madly—to laugh, scream or destroy; mechanical restraints serve as an irritation, and cause the greatest desire to accomplish, yet the victim can not. His unrelieved desire drives him to greater madness, like one in continued nightmare. An example of the effect of mechanical restraint may be witnessed in grasping a nervous, crying child; or a woman when laboring under nervous excitement which impels her to walk, or a man who is angry. In each case the crying, the walking or the anger will be increased. Any one who has had to do with persons in convulsions has observed that the holding the hands and limbs of such persons increases the convulsion to the most intense activity, and that the stimulus of the restraint acts like the interrupted current of electricity from a powerful battery, and the victim of the disease is far more exhausted than if left entirely alone.

Example.—H. G., a young man of twenty-one years, was admitted in July, suffering from acute mania. He was put in a crib at once and locked down. He did not cease to resist the confinement by great muscular effort and swearing for two days and one night. When he was ordered released and permitted to walk out with an attendant, and to engage in work and to smoke, his mind became calm, and in a few weeks he was as able as ever to labor and amuse himself.

E. S., a young married woman, had been strapped to the restraining chair for weeks, besides her arms and hands being confined by a camisole. She was never quiet, bound down as she was; she constantly squirmed

and writhed in the chair; the removal of all restraints, instead of being followed by dangerous conduct, was followed by words and acts of appreciation of the greatest kindness. She is as insane to-day as ever, but no longer an object of danger or disgust, having at least the pleasure of walking the wards, rocking by the window, or stretching her weary limbs at full length upon the lounge when so disposed. Hundreds of instances could be given like the above, to show the exciting quality of mechanical restraint.

Instead of there being more noise in the wards, there is now far less, and the administration of chemical restraints less frequent, because the excited patient being permitted freedom of bodily motion will take such exercise as will promote nature's desire for sleep.

It is a mistaken though popular idea that insane persons are not teachable, and that they can be managed only by force; whereas, in truth, they are frequently quite apt and close observers, and the majority have sufficiently good memories to at least remember all the evil words spoken to them, or the cruel treatment they have received at the hands of others. They are like grown-up children, with acute perceptions, frequent lack of reasoning power, and hence false judgment as compared with imperfect will power. It is noticeable that those who were never profane or vulgar soon become so by association with those who are, and those who were gentle soon learn to give blow for blow as well as word for word, just as children do. And just as the gentle and intelligent parent or teacher may manage and reform the most thoughtless and so-called wicked child without resorting to the whip or loud abuse, so may the violent

insane person be managed by those who have the heart, the patience and calmness of demeanor. Some of the best attendants upon the worst wards of the Hospital are the slightest physically, and no one would find employment simply because of physical strength or a superabundance of brute force. The problem of abolishing all mechanical restraints will never be solved until the model attendant is found to take charge of the patient. No matter how wise or how sympathetic the physician may be, the wards of a hospital for the insane are sealed books to him; the one condemned to enter the wards as crazy or "mad," soon learns that he or she has lost the right all other human beings possess, that of making complaints that will attract serious attention. No one knows or can know what the insane may or do suffer at the hands of thoughtless, cruel, wicked employes, who are intended to be companions, friends and instructors of those placed under treatment.

The reform in the care of the insane in this institution may be dated from 1865, before which time the horrors and cruelties of a previous century were in vogue—a condition which we could scarcely believe were it not given directly by an eye-witness, who is now among the oldest and best known alienists of the West, Dr. W. W. Hester, now of the Illinois Southern Hospital for the Insane. In a letter which shows the good heart and progressive spirit of the times, he says:

ILLINOIS SOUTHERN HOSPITAL, FOR THE INSANE, }
ANNA, ILL., October 27, 1883. }

DEAR SIR: I see by the papers you have begun the work of instituting the non-restraint system in the control of the insane under your charge. I write to give

you a word of encouragement, as I can stand to your back with nineteen years of practical work in the direct management and treatment of the insane, and from an experience of 30 per cent. of restraint shackles, besides the practice of shower with cold water in the faces of unruly patients, and the use of ducking, (plunging the patient's head under water until they cried enough and submitted), etc., all of which I found practiced at the Indiana Hospital for the Insane, when I was appointed to service on the 21st day of February, 1865. I had then just emerged from a term of three and one-half years' service in the army, fresh from the field of carnage and the human indifference an army life begets, but I saw nothing in the army practices so horrifying to me as my early experiences in hospital life. Suffice it to say that gradually, in my department, I excluded all these extreme practices, and when I left the hospital in June, 1879, the restraint system had been reduced to its minimum use, and in the memory of the oldest hospital inhabitant the barbarous appliances and practices of previous times were quite forgotten. There is in use here, in my department, (for women), very little restraint. With an average of 260 women, I have only two cribs—piano-front lift style—which are seldom used for restraint purposes, and only in such cases as your experience has already taught you they are useful for. Have the folding top locked back when not needed, to secure recumbency of the patient. Use no muffs, no straight-jacket, save a short-cut roundabout, endless sleeves, etc., etc., so that our account of restraint, which is kept in a systematic order, and inspected and governed by me hourly, all of which averages, of all restraint, only half the time for one person, as stated, with an average of 260 persons in daily attendance.

Now, what can be done in one place can be done in another. The utter, complete abandonment of all means of restraint I would consider as inhumane as the extreme use of it. In its stead would come seclusion, which, in

my experience, is very hurtful and ruinous from a clerical stand-point, as well as from other humane considerations. I never dose a patient with sedatives because he is merely noisy or refractory. I use no chemical restraint. I consider them applicable only in conditions tending toward exhaustion, as my medical records of medicines prescribed will show.

I hope you will pardon this intrusion on your time, but I was so delighted at reading of your recent steps taken for the welfare of the insane for whom I have such deep sympathy, etc., I could not refrain writing you to encourage you to go on with the good work. Whatever of ill usage and tongue abuses I have been the subject of whilst connected with your hospital, all grew out of my making enemies by reprimanding those who were belligerent and inhumane in their care of my patients, the helpless insane; and having an inward conscience that I tried to do my whole duty in a humane manner, I am content.

I wish you, Doctor, and your assistants, all the success desired in your great work.

Yours truly,

W. W. HESTER.

The reform inaugurated by Dr. Hester has been continued, and since the first of July, 1883, there have been abolished from the wards of this Hospital 269 restraint chairs, 120 cribs, 101 camisoles, 107 restraint straps, 55 pairs of restraint gloves, 56 wristlets, and 2 leather collars.

A comparison of the monthly reports for the month of November, 1882 and 1883, will show what has been gained in favor of non-restraint during the last four months. To those unacquainted with the management of this Hospital, it may be stated that there are two large buildings under one management, situated about three hundred yards apart—one department for men, the other department for women. They are known as the D. F. M. and D. F. W.

SYNOPSIS OF DAILY REPORTS OF WARDS, NOVEMBER, 1882 AND 1883.

REMARKS.	No. on Ward.	Employed in Ward.	Employed out of Ward.	Sick, in Bed.	Taking Medicine.	Crib, Day and Night.	Crib, Night.	Restrained Otherwise.	Injured.	Walked Out.	Special Diet.	Not Eating Well.	Destructive.
D. F. M. Nov. 1882. . . Nov. 1883. . .	19,151 18,285	3,544 3,150	2,328 1,334	152 85	4,388 3,518	79 4	957 14	525 9	5 1	2,429 8,459	352 687	209 297	62 70
D. F. W. Nov. 1882. . . Nov. 1883. . .	13,850 14,852	1,035 1,881	544 757	228 90	7,379 4,350	164 2	1,641 110	583 15	10 4	4,123 8,558	1,413 1,846	199 323	34 341

There is yet a difference of opinion as to whether all forms of mechanical restraint can or should be dispensed with. It would be considered reckless for one having but a few months actual experience with a large number of insane persons to assert that they should; yet that is my firm conviction. To the economist we acknowledge that the outlook is not favorable to retrenchment in expenditures, but it will be encouraging to the philanthropist as well as curative to the patient. It may yet be proven economical to a State to use other means of keeping insane persons rather than keeping them tied. It may be found cheaper to make most of them self-helpful, and all of them more cheerful, by a systematic training and instruction, by precept and example, (particularly the latter), in matters of carefulness, industry and self-reliance, which can only be done by procuring the higher grade of talent on the part of the attendants.

The day has gone by when specific medication in insanity is thought of. The treatment is largely custodial with no further curtailment of personal liberty than is necessary to prevent injury to the patient by himself. I see in the dim future fore-shadowed an enlightened and philanthropic generation who will convert our prison like hospitals into large training schools and industrial col-

Since the above was written I am happy to state that from Christmas day, 1883, until this date, February 13, 1884, no restraint of any kind, known as mechanical, has been used save in one instance. Seclusion in a room, (not a dark room), has been resorted to for short periods on occasions of great excitement. Our number of attendants has not been increased. We have had fewer patients injured, we have had fewer escapes, a less number on the sick list, the same number of suicides (one), and a less number of deaths by one than during November, December and January a year ago. A remarkable fact, to be particularly noted, is that not more than one-fourth as much sedative medicine, or other form of chemical restraint, has been used.

leges for the insane, and the place of attendant, now synonymous with servant, will then be filled by the best paid and most skillful teachers in the land. The physician will do little more in such institutions than he does now in large schools and colleges—treat such current ailments as arise in any small community, and no more.

Since this paper was written I have received, through the kindness of Hon. Geo. L. Harrison, President of the Board of Public Charities of Pennsylvania, the report of a commission appointed by Governor Hoyt, to “consider the question of the care of the insane of this Commonwealth,” etc. This commission, as will be seen, consisted of a selection of the best, from the brightest men in law and medicine to be found in the country—who, for learning, probity and philanthropy, are unexcelled in the world. Upon the subject of Restraints, the commission closes its report as follows:

“5. RESTRAINTS. If there were more exercise and useful occupation, there would be less employment of mechanical, or even medical restraints, advocated and practiced by some superintendents.

“In English hospitals restraints are considered injurious; they rely solely upon moral influence of suitable kind, occupation and exercise, and have found by experience that when patients have had such reasonable treatment there was no need of mechanical restraint of any kind. The suggestion by the advocates of mechanical restraints that, were they not used, medicinal sedatives would be more largely employed, is a false one. On the contrary, the irritation caused by the former is not experienced, and thus the various drugs used to relieve it are not necessary. These statements are based upon

unquestionable personal knowledge and observation. In institutions in this country, where the abolition of restraint apparatus has taken place, the same results have followed. 'To-day,' says one of these superintendents, 'we use no straight-jackets, straps, etc.—the absence of restraint and the occupation of the patients have been most satisfactory; the patients have quietness, are more happy, and many have recovered while working, who otherwise would not have done so, or would have recovered much more slowly. I have become convinced that a great deal of liberty can be allowed most patients, and that to their advantage and happiness.'

"If restraints are used at all, they should be restricted to patients of a suicidal and homicidal tendency, and be applied only by the personal direction of the superintending physician. But in all other cases their use should be prohibited. We think they should be prohibited altogether.

"Signed,

"John F. Hartranft,

"Richard C. McMurtrie,

"Joseph A. Reed, M. D.,

"S. Weir Mitchell, M. D.,

"J. T. Rothrock, M. D.,

"L. Clark Davis,

"George L. Harrison,

"COMMISSION."

THE

DOMESTIC CARE OF THE INSANE.

A Lecture delivered before the Indianapolis Training School for Nurses.

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WHEN invited to lecture before you, I was informed I would be expected to occupy an hour; now I will not attempt more than half that. From the Sermon on the Mount to this day, I know of no good thing that could not have been said in half that time.

The subject selected by you—that of The Domestic Care of the Insane—I consider one of the greatest importance, and one that has been much neglected. The general as well as the special care and treatment of persons afflicted with mental disease, is usually shrouded in a sort of mystery. Even medical men in general practice seem awed when they encounter a mind diseased, and people in the ordinary walks of life hide from the unfortunate patient or rid themselves of responsibility by hiding the poor wretch behind the bars of some hospital or asylum.

Whilst I would not detract anything from the specialist, I believe there should be more general and popular knowledge as to the care of the insane disseminated among those who are not medical men. If nurses were better qualified, and general practitioners bolder, we would not see the sad spectacle of childish old persons, nervous and perhaps wormy children, hysterical young

women, persons suffering from the delirium of an acute fever, or a woman with peritonitis, being carted off to a retreat for lunatics. With the rapid increase of insanity we must have some improved methods of dealing with the milder cases at least, else our greatly increased hospital capacity will be inadequate to care for all who are loosely adjudged of unsound mind.

Insanity, like other diseases, requires skilled medical direction, but far more than others, demands attendants who are educated for that special purpose.

Through the prevalent error that all insane persons are dangerous, and that they can be managed as well by force, duplicity and fraud, as by kindness, truthfulness, and all that should characterize the treatment of the sane, a large number of cases become worse every day, and are finally committed to a public or private institution, who might, with judicious care be restored at home.

Insanity is a word used to indicate a condition of loss of self-control through disease of the brain or some remote organ. This loss of self-control may be either constant or of occasional manifestation; it does not follow of necessity that reason should be at fault—insane persons often reason correctly but act out of reason; moments of correct inference may be followed by most incorrect deductions, and unwarranted conclusions.

In caring for the insane it should be remembered that you are to deal with the patient's mind as well as his body, the former more, perhaps, than the latter. As you have seen cool water quench the fire of the fevered tongue, or allay the throbbing, burning head, so may your looks and gestures, or your smiles direct the wild

torrent of insane impulse into quiet streams of undisturbed thought.

To attempt a description of the various forms of mental disease would be a hopeless task, and, as I desire to touch upon the care rather than the medical treatment, I will divide them into two classes—those who are suicidal and homicidal, and those who are not. The former can not be recommended as subjects for domestic care, whilst the latter class may be attended at home; the possibilities of domestic treatment being only limited by the financial ability of the patient or his friends. The domestic care of the insane is the same as that which is, or should be, given in hospitals, and has to deal with acute and chronic forms of insanity, varying from the wildest destructive delirium to the most stupid imbecility.

The most potent factor in the care and treatment of the person of diseased mind is a well-qualified attendant or nurse. Such persons, like poets, are born, not made. Nature must have endowed them with unusual qualities of mind and body, and an attendant should not be so old as to be incapable of learning more, nor so young as to think that all knowledge has been acquired. In person strong and well-formed, with no physical imperfection—in fact, good-looking; in manner, all gentleness, yet firm; soft of speech, sweet in song, swift in movement, and of such amiability that no provocation, however grave, may cause a reflection of unpleasant emotion to display itself on the countenance; a person of rare wit, to take advantage of every word and act of the patient, and to be able to turn it to the patient's good; a person of untiring energy and, above all, having a real love of

that special work, temperate in all things, and from all alcoholic beverages a total abstainer; temperate, too, in self-estimation; having no religious, political, and above all things, no medical hobbies: the greatest curse that can come upon any patient is to have as a nurse or attendant one whom the gods have first made mad with the idea that he is a doctor. Finally, our nurse should be as scrupulously clean in mind, body and dress as the angels are supposed to be.

I have said that the mind of the patient is the object-point of your care, and I can assure you that, to produce the effect, you must remember that the insane mind is of most varying disposition. The master artist who was asked by his rather idle pupil how he mixed his colors to produce such beautiful effects, was answered rather sharply, "with brains, sir, with brains;" and never will brains serve better purpose than when well used to blend the discordant and inharmonious elements of the excited imagination of your patient. You are to remember that this mind is dependent upon the body for its support and integrity—we must at all times keep an eye upon that. The first thing to be gained is to get your patient into good physical condition, and keep it at that point all the time. It would be tedious and useless to describe to an intelligent audience all the various kinds of exercise, and the means of inducing the great variety of patients to utilize them. There is one plain rule that you may work on, and that is: never use force to obtain the end in view; do precisely as you would with a child that you expect to educate by the humane and reasoning method; persuade, reason, induce by well-kept promises of reward—anything but lying or force.

Food, combined with enough exercise, are twin influences to supply the brain with the good blood which is the requisite of every well-working mind. The great drawback to hospital treatment of insane persons is that they have either too little food and too much exercise, or—what is more frequently the case in America—too much food and a lack of sufficient exercise. Amusements of a kind to give mild muscular action, free from too great excitement, are to be commended. Balls, concerts and theatrical entertainments can be indulged in by some to their benefit, but to the great majority are not well adapted. In the acute stages of certain forms of insanity, the patient raves, swears and struggles to get up, out and away, and, as far as may be possible, he should be indulged in his fancy. A patient with a red face and congested eyes is the better for being on his feet, thus distributing the circulation to the extremities, than by struggling to get free from the horizontal position in which he must be held by mechanical force. The exercise and the diet of such cases, as well as all medication, is of course supposed to be under the direction of a skillful physician.

With the chronic and apathetic insane, the difficulty is to arouse them to action, and will tax the ingenuity of the attendant to the utmost. With the chronic insane one of the most popular errors is to utterly abandon them to a life of mental neglect. I do not believe there are ten in a hundred of this class who could not be taught some useful, and to them entertaining, occupation. A man may have lost his ability to appreciate the society of friends, and hold the most absurd delusions—he may have forgotten all he had learned, and yet be

taught some pleasing and valuable mechanical employment. The former teacher, lawyer or physician may have lost all remembrance of his profession, and yet he may become a good workman in the greenhouse, on the farm, or in the shop; and many a mechanic may have lost the ability to perform his usual labor, and, I doubt not, might become, under some conditions, quite proficient in law or medicine.

The moral treatment of the insane is one of the most important. It is a kind of treatment that can not be given in "broken doses," but must be constantly in force; it should be administered by every one coming in contact with the patient; no harsh word, no unkind insinuation, no reference to the sad condition of the individual should ever be made in his or her presence.

The greatest drawback to the domestic treatment of the insane is the paramount egotism which usually characterizes them; and when they are in their own homes, the extreme and overbearing manner to all who have formerly been under their control, and the absolute authority they assume, makes home treatment far more difficult than hospital management. In such cases the best thing for the patient will be to go on a journey of some kind, or make a visit to some one much loved or respected. Frequently we obtain the best results from having the patient surrounded by strangers, before whom most perfect self-control will be used.

As to the influence of religious exercises, or any kind of religious instruction, I do not think that in the majority of cases any harm will arise, but, on the contrary, some good may be expected. The influence of the religious sentiment in the human mind is, as a rule, more

for good than evil, and should be cultivated as a curative measure rather than be avoided as a disturbing element. I have not been able to find any person who has gone mad because of religion, but many become religious, in a popular sense, because they are insane. Such persons, under what is called religious excitement, give vent to their thoughts in mingled prayers, blasphemies, ravings, and most obscene utterances. The typical religious "crank," so well known in this country, is not a "crank" because he is religious, neither did religion make him a "crank." You may put it down as a rule that, as one writer has said, "more mad people become religious, (using the word in its phenomenal sense), than religionists go mad." In selecting the form of religious instruction, I would suggest that it be of the most gentle, soothing kind, free from the rant and stage effect which so frequently mars the true spirit of sacred teaching. Music, either vocal or instrumental, has a most soothing effect, and can be utilized with benefit in most violent cases of insanity. Reading and story-telling has the same charm for many of the insane as for children.

All that I have said pertains to generalities, for the endless variety of cases one would have to deal with, if special treatment were described, would require the whole life history of each patient.

I will call your attention to another important point, upon which much of the success of domestic treatment will depend, and that is, to have no manifestation of fear when dealing with the insane. No class of persons so readily perceive their power or so gladly use it. If they observe that you fear them, they are stimulated to do the most outrageous things, and it is better that they be

committed to an asylum or hospital than to be surrounded by those who manifest fear.

I submit to your consideration a few rules which are used in most establishments for the treatment of the insane, and which have the same import in the management of those who are kept at home :

Treat the patient with uniform attention and respect. Greet with friendly terms and salutations, and exhibit such other marks of kindness and good will as evince an interest and sympathy. Speak in a mild and persuasive tone of voice, and never address the patient coarsely or by nickname.

Never speak in a loud or authoritative, scolding voice, nor in an excited nor threatening manner.

Never ridicule, mock, taunt, or otherwise irritate or provoke a patient. Never stimulate them to manifest the peculiarities of their infirmity to gratify the curiosity of others.

Never interrupt a patient who may be making statements regarding yourself to others, no matter how false or absurd they may be.

Never strike, choke, pinch or use any unnecessary force in handling such patients as may require restraint. No sort of punishment can be regarded as an element of treatment.

Never put handcuffs, anklets or any kind of restraining apparatus upon a patient, no matter how violent he may be ; it has a tendency to degrade him, and there is great danger of doing serious injury to the limbs or internal organs.

Verily, "the sense of oppression maketh a man mad." So saith the preacher. In this connection I would call

your attention to the very common error of trying to hold or restrain persons who are suffering from epileptic or other convulsions. It is the greatest cruelty that can be perpetrated upon the afflicted one. To lay hands upon, or even to touch, a person who is suffering from hydrophobia or poisoning by strychnine, is of itself sufficient cause to throw him into most violent convulsions. This rule holds good in every form of spasmodic action. Remember, too, that mental spasms, if I may use the expression, may be excited by muscular irritation. It is for this reason that I would abolish every kind of mechanical restraint from every hospital for the insane in America, as I am convinced that it is of itself a source of excitation of the graver forms of permanent mental alienation, and retards the recovery of all those subjected to it.

The question as to what class of cases would be better, or as well, taken care of at home or under domestic treatment, is somewhat an open one, for we have to consider that it is as yet a matter of experiment. I have no doubt in my own mind that there are thousands of the chronic, harmless insane kept in the wards of hospitals who would be happier and, to some extent, useful at home, or upon board in the country if their friends do not like to have them seen at their own domiciles. The majority of the hospitals swarm with a variety of inmates who sit idly against bare walls in dismal wards, year after year, fed and watered like cattle, waiting simply to die. The acute stage of their disease having passed, they are classed as incurable, and their life ends, so far as any further usefulness goes. I believe, too, that the inducement held out by a too-indulgent State government,

almost begging persons to come in and live free upon her bounty, is having a baneful influence upon the American people, and induces a condition akin to that which pauperizes Europe—that of expecting the State to take care of the citizen at public charge. The gradual obliteration of that sensitiveness, once the pride of the independent, is what causes our free benevolent institutions to be filled to overflowing, and causes an apparent increase of insanity that does not in reality exist. This I deem largely a matter of culture, and culture of a bad tendency. Fifty years ago it was difficult to get even the acute and dangerous class of insane to come to the hospital, so loath were their friends to partake of public assistance. Since that period there has been a large emigration of the lower classes of Europe, who have in their own country been constant recipients of charity of a public kind. They have no sensitiveness to overcome, and find but too ready a refuge in our asylums for any that are not quite able to take care of themselves, or are too indolent to do so—it is such an easy thing to shift the disagreeable encumbrances upon the State.

This is going to the other extreme, and foists useless burdens on the tax-payers, and breeds a dependence in the hearts of the people that is unworthy the high standing we have held as a free and independent nation.

There is about as much reason for the State to take charge of and treat the chronic consumptive as there is for it to treat the chronic insane who are of the harmless kind. When the day comes that we have a better understanding of this matter, and quit building palaces and offering inducements for persons to fill them free of charge, we will behold a wonderful decrease of insanity.

Then, instead of having a little more than one in five hundred, we will see the ratio fall back to the old standard of one in about twelve hundred.

While I thus think that the harmless chronic lunatic may be easily kept, and to an advantage to himself, it is quite uncertain as to the acute cases. With the acute the chances are that they will be much better off if sent early to a place where such cases are constantly being treated. This is particularly the case if the insane one is of violent disposition, or inclined to escape. This class may be cared for quite well if their financial standing is such that they can command the constant attention of well-qualified nurses without being sent to hospital or retreat.

In conclusion, let me assure you that the good work to be done in this special field is new and vast; the same good rules and principles that have been taught you pertaining to the general care of the sick, will stand you in good stead in the domestic care of the insane. I do assure you that no more interesting study will ever be presented to our investigation.

There is something sacred about insanity—the traditions of every country agree in flinging a halo of mysterious distinction around the unhappy mortal, stricken with so sad and lonely disease. The poet who has most studied from nature—the immortal Shakespear—has never made our souls thrill with more intense sympathy than when the personages brought before us were bereft of reason. The gray hairs of King Lear are silvered o'er with additional veneration when he raves, and the wild flower of insanity is the tenderest that decks the pure garland of Ophelia. To contemplate what was once great and resplendent in the eyes of man, slowly mouldering

in decay, has never been an unprofitable exercise of thought, and to muse on reason itself prostrate, can not fail to teach us our complete dependency.

With all the fastidious pride of fancied superiority, and in the full plenitude of our undimmed reason, we cannot face the breathing ruin of a noble intellect undismayed. The broken sounds, the vague intensity of that gaze, those whisperings that seem to commune with the world of spirits, the play of those features still impressed with the signet of immortality—though illegible to our eyes—strikes us with that awe which the obelisk of the desert, with its insculptured riddles, inspires into the Arab shepherd.

If to dwell among ruins and amid sepulchers, to explore the pillared grandeur of the tenantless Palmyra, or the crumbling wreck of a Roman Ampitheatre once manned with applauding thousands and rife with joy, now overgrown with shrubs and haunted by the owl—if to soliloquize in the valley where autumnal leaves are thickly strewn, ever reminding us by their rustle as we tread the path “that all that’s bright must fade”—if these things beget the mode of soul in which the suggestions of Heaven find radical adoption—how forcibly must the wreck of mind itself, and the mournful aberration of that faculty by which most we assimilate to our Maker, humble our self-sufficiency and bend down our spirit in adoration.

CARE AND DETENTION

OF THE

INSANE.

Read before the 18th National Conference of Charities and Correction,
Indianapolis, Ind., May 15, 1891.

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THE question of detention and care of the insane is one of paramount importance in all civil governments; it frequently involves in the highest degree the civil rights of mankind, and demands the most acute psychological knowledge. The highest legal acumen, the most profound medical skill must here decide the greatest good or the utmost harm to a human being.

Who should be detained or committed as insane? What degree of insanity demands attention? How shall they be committed? Where shall they be detained? How long shall the detention continue? How shall the agents be appointed who are to care for the unfortunates who are to be detained? These questions are almost entirely for medico-legal consideration. I will treat of some of them in a general and suggestive way, rather than exhaustive.

It has been said that sanity and insanity shade into one another as gradually as day into night, and I might add, in some cases, with almost as frequent and systematic periodicity.

There are a large number of persons whose insanity develops in such manner that the propriety of placing

them in hospital to guard against injury to themselves or others is beyond question. The man or woman who, without the forerunner of fever, becomes wild, maniacal or raving; whose will is gone, and no argument induces the return of the lost power of self-control, is insane beyond question, and it requires neither judge, jury nor commission to determine the fact that immediate detention and control by others is best for the individual.

There are other cases, however, even more dangerous forms of insanity, that develop slowly and with the perfect consciousness of the victim, who, desiring to hide the mental deformity, become the most expert dissemblers, manifesting a cunning in acting that deceives all but the expert alienist.

The limit of human knowledge is reached when mind tries to comprehend mind. No more difficult medico-legal problem is ever presented than that of determining how to deal justly with our fellow-men with mind diseased.

The authority to commit to a hospital a person alleged to be insane is, in the United States, vested in a commission composed of a judge, justice of the peace or some officer of the court, and one or two physicians—one the medical attendant and one as medical examiner. It is thus in thirty-three States and Territories. In five no medical evidence is required; in seven the commitment is made by jury trial, when one member must be a medical man, and in two by jury alone. In a few States it is forbidden that any medical officer of a hospital for insane shall testify, thus in some cases depriving the court of the only testimony of real value. When both judge and attorney are only learned in the written law,

and totally ignorant of psychiatry, and the jury ignorant of both, what chance is there for that class of cases not marked by the most startling phases of mental disease? Or, if medical testimony is evoked in the case, it is usually an expert for revenue only, whose local reputation is made up by his being either an old doctor, a good surgeon, a first-class eye and ear, nose and throat specialist; yet who never spent a day's investigation of the science of psychiatry, and has about as vague ideas of brain pathology and alienation as he has of astronomy.

The jury system can have but one claim of justice in it, and that is that the alleged insane person is not committed without a chance at defense, and this apparent justice is at times unjust, as it gives undue notoriety and does positive injury by exciting graver forms of the disease, while it falls short of justice in many instances by setting free persons dangerously insane whose very insanity is marked by deception and cunning.

In most of our hospitals for insane the action of the committing powers is submitted to the superintendent as a final judge, and he may accept or reject as his knowledge, ignorance or fancy may suggest, after he has read the certificate. But how absurd to expect a physician, miles away, to decide from a written statement of ignorant or unskilled persons, as to the character of the most complex and intricate of diseases. What physician or surgeon of repute would commit himself to an opinion except from personal inspection of the patient, or information from some expert? How is the superintendent, who as a rule is but endowed with human knowledge, to know that this alleged insane person has not some taint of blood from temporary derangement of stomach, kid-

ney, liver, etc., requiring nothing more than temporary treatment at home for restoration, when removal to hospital might prove a positive injury? How does he know that it is not the delirium of pneumonia or derangement of circulation from structural or other causes?

There are a large number of cases of temporary insanity of acute form that are not connected with any structural change, but merely functional disturbances, which, for the good of the patients and economy to the State, should be treated at home, just as measles or typhoid fever is. The whole point rests in the recognition of the cause of insanity, and this is rarely within the scope of judge, jury or commission.

A woman with puerperal mania is likely to recover fully in from thirty to ninety days. Shall she be taken from the bed of maternity, carried before a judge and jury, exposed to public gaze and the remarks of vulgar lawyers who infest our court rooms? or shall the officers of the law inspect her? Would it not be better if her medical advisor demands her removal for treatment, that she should be removed, not to the wards of a public hospital—where she may recover, it is true, but with a lasting sting of vile associations and public disgrace, with the stigma forever attached that she was once an inmate of a hospital for insane—if, from peculiar environments, it is safer and better to be taken from home, would it not be much better to have such a case removed without process of law, just as she might be with a fractured limb or with fever, to a private retreat or a general hospital? There is great need of both professional and general education upon this point.

Dr. Joseph Lallor, of the Richmond Hospital for the

Insane, in Ireland, said to me nearly a quarter of a century ago: "We have hundreds of harmless insane in Ireland who either live at home or wander about the country unmolested, who in America would be shut up. It is because the people here do not demand that every form of mental obliquity shall be treated and kept in hospitals, whereas in America they do."

If the present public sentiment regarding the danger and persistence of all forms of insanity increases during the next half-century as it has in the past the entire revenues of a State will be insufficient to maintain the persons of recognized defective minds.

The small State of Indiana to-day supports four hospitals for this class, and we are informed that each one is crowded to its utmost capacity, leaving some hundreds of chronic insane unprovided for.

The day is past when mere alienation is regarded as a spiritual affliction purely, and intelligent medical men recognize the fact that the mental manifestations are but functional or organic defects, many of which are self-limited, many curable, and some incurable.

The remedy for the abuse of too frequent detention at public charge is that each State should have a board of experts who could be called to examine all questionable cases before the last resort to legal proceedings.

Each city having a general hospital should have a ward or rooms for temporary detention and treatment of emergency cases, instead of having the violent cases—as they frequently are—held in jails or police stations during the very time they require the most active treatment, waiting the slow process of the law and pleasure of the superintendent. Some States have provided such houses

of detention, where commitments may be made upon the certificate of a reputable medical man. Where shall the insane be detained? might be answered: Wherever they can have the most freedom, the least personal restraint, the best climate and food, the most fresh air, the fewest keepers and watchers.

I predict that in fifty years the piled-up structures of architectural magnificence, with palatial officers' quarters in the center, flanked by prison cells, will stand empty monuments of our ignorance, or will be changed into shops or factories or schools of learning, while true principles will prevail and we shall learn, looking backward to the little Belgian village where, for hundreds of years, the insane have been treated in simple fashion of village life.

Without doubt there are some insane who require restraint and careful watching, but they are the few. Gheel has some inhabitants who cannot be trusted at large, but no such horror could occur as has frequently occurred in the United States, where many have perished in the flames and the air is almost tainted by the stench of roasted bodies of men who perished locked in cribs, as in the recent burning of the hospital for insane at Nashville.

Nowhere in the civilized world has the philanthropist done more in founding institutions of learning, establishing libraries, building general and special hospitals, than in the United States; but there yet remains one grand act of philanthropy which shall do more for humanity than all others. A starry crown and eternal fame await that one who will remember the "sick in mind" by establishing in some southern land a new Gheel—in a

southern land because nearer the clime of perpetual verdure, blossoms and birds and sea breezes, insanity is least known and most easily cured.

The selection of agents to care for the insane would appear no difficult task, and would not be provided they were selected on account of their peculiar fitness. It would be absurd to take an ordinary carpenter and elect him architect or master carpenter of the Columbian exposition buildings, or to elect the village blacksmith master mechanic to build an iron man-of-war in our navy yards. It is equally absurd to appoint as medical superintendent one who has not devoted years to the special study of psychiatry and the treatment of mental diseases. He must have this acquirement or he cannot command the proper treatment of his patients through his subordinate officers. In most of our States and Territories the appointments of those who should treat the most serious and mysterious of all diseases are selected by the same persons and in the same manner that the officers and guards of our prisons are, and it is for this reason that the results are about the same. Our hospitals are less places for treatment than they are keeps for the insane.

It is for this reason that so little real knowledge of the causes, pathology and treatment of the insane has ever been developed in hospitals for the insane in the United States. Nearly all we have learned comes from experience, study and observation of men who were never superintendents of such institutions.

It is doubtful if one skilful physician could examine twenty patients per day at his office and do justice to the patients. What must be the condition, then, in a hospi-

tal of fourteen hundred or more patients with a medical staff of four to six physicians, most of whom are appointed for their politics only? What likelihood is there of careful study of each case in all its various changing symptoms, both night and day?

The larger amount of the abuses and general neglect, hence long and expensive detention of the insane, comes directly from the method of appointing and selecting those who are to be with them and care for them. It is largely if not entirely due to this association that many of the most important reforms have been brought about in the management of hospitals for insane. There is yet much to do in cultivating public opinion regarding the true character of the various diseases which are manifested by alienation.

The way to remedy the present evil of neglect in proper treatment of the insane in public hospitals would be to educate alienists just as we educate our best physicians and surgeons. A young man who desires to be either, after graduating, presents himself for hospital appointment by competitive examination, and, if successful, serves eight months as a junior, eight months as a senior, and eight months as house physician or surgeon, as the case may be, and at no time does he receive any compensation, except a part of the time his board, etc. By such a system we should soon have as good alienists as we now have surgeons, gynecologists, oculists, dentists, etc.

Another point gained in the plan would be that a sufficient number of trained medical men would be in attendance to study and observe the patients more constantly, not only giving better treatment but putting a

check upon abuses by attendants. I doubt if there is a single large hospital for insane in the United States having sufficient medical help to properly study the cases in hand.

By introducing much smaller and cheaper hospitals, by requiring greater medical attention to each patient, by causing the adoption of uniform laws regarding the commitment of patients, by simplifying the method in emergencies so that the patients may be treated promptly and not after the disease has done its greatest injury, which is usually during the first few days; and, finally, by encouraging the establishment of a new Gheel, where the village system may be tried under more favorable conditions than in the old colony of that name; where cottages of improved modern construction may be rented for patients of any class; where the person of wealth or of most meagre income may be able to find an abode, private and retired from the objectionable features of public hospital life—when in this new Gheel schools are established, various industries carried on for the patients, and a place of special instruction for physicians in psychiatry and all its collateral branches—then, by these means, I say, the old order of things shall have passed away and the present evils be abolished.

As a brief summing up of these suggestions I would recommend:

1st—That uniform laws be enacted in all our States and Territories regarding detention.

2d—That in emergencies the commitment be a simple form, and the admission to any general hospital until the more formal proceedings can be had.

3d—That in questionable cases an expert or experts

be called.

4th—That the commitment shall be final so far as admission to the hospital is concerned, and not to be revised by the superintendent until he has examined the case.

5th—That the lives of the detained insane shall not be put in jeopardy by being imprisoned by hundreds in three- and four-story buildings—locked in cells or cribs by irresponsible attendants.

6th—That all hospitals or departments for insane women shall be under the control of a female physician.

7th—That no physician shall have charge of and treat the insane in any hospital until he has gained, by study and experience, the knowledge required by an expert alienist.

The Influence of the Dura Mater in Causing Pain, Reflex and Other Phenomena, when Injured or Diseased.

Read before the Section of Practice of Medicine, Materia Medica and Physiology, at the Thirty-Eighth Annual Meeting of the American Medical Association, June, 1887. Re-printed from the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, August 13, 1887.

THE dura mater, the mother membrane of the body according to the ancients, is a much neglected and most important organ, for organ it must be regarded in the human anatomy. To the average student and general practitioner the dura is but a tough, inelastic, fibrous membrane of unusual thickness, which plays the part of a scaffolding and support for the brain.

A careful study of this part, however, shows that it is not only the superstructure upon and in which the brain is built, but that it is an internal periosteum to the skull—a complex channel for the great venous currents through which course not only the venous blood from the brain, but much from outside the skull,—likewise a soft, serous cover for the membranes of the convolutions and sheath for the cranial nerves. It has, furthermore, a small arterial supply, which is gathered from branches of both the external and internal carotids, but is most peculiar in being a most sensitive organ, with a greater combination of sensory motor and vasa-motor reflexes than any other part of the body. The nerves of the dura come from the

Casserian ganglion direct, and from the three great branches of the fifth pair. With these are combined branches of the facial and a number of sympathetic ganglia relating it to the spinal cord.

Van Helmont and others of his school regarded the dura mater as the seat of sensation. Marshall Hall (1841) was the first to announce that its irritation caused reflex actions. In 1872, Dr. John C. Dalton showed that convulsions or contractions followed irritation of the dura upon the same side. These observations have been confirmed by a large number of experimentalists, more particularly by Duret, who injected iodine and other chemical stimulants between the cranium and the dura and produced fracture of the skull at various points.

All these experiments were upon lower animals—presumably dogs. That the same condition exists in an exaggerated degree when the dura in the human subject is either diseased or injured, is recognized by Duret and others. This author, who has written most exhaustively upon the subject, intimates that so much confusion may arise between reflected sense and motion arising from irritation of the dura, as to puzzle the advocates of cerebral localization. He says: "Certain opponents (of cerebral localization) have adduced these facts to prove that the localized movements, which are determined by the application of the electrodes on the pretended motor centers of the cortex, were in reality due to irritation of these sensory conductors."

I herewith submit a sketch of a few cases which illustrate to some extent the function of the dura as an organ of sensation and reflected motor contractions, first premising my remarks by calling attention to the anatomi-

cal points of the scalp and cranium. The scalp is not normally acutely sensitive; its cutaneous sensibility is less than other parts of the skin, notwithstanding its sensory nerves are from external branches of the fifth pair of nerves. The skull-cap, when examined, shows many openings, through which emissary veins pass from without inward, as can be plainly seen upon the dura by the numerous spots where these veins have been broken in tearing the fresh calvarium from the brain; through these openings in the skull frequently, but perhaps in abnormal conditions, the extremities of the dural branches pass; it is from this we have occasionally those dreadfully sensitive tumors of the scalp, or the more dreadful tumors of the dura, which Abercrombie, Louis, Wenzel Brothers, Cruveilhier and others describe as commencing in the dura and making their way through the skull, lifting the scalp and finally breaking into fungoid masses of the most disgusting and painful kind upon the surface. These external dural nerves, if I may so name them, also account for the excessively sensitive spots which some persons have upon the scalp, when they must avoid the pressure of even a brush or comb, and arrange the hat for the particular spot. I doubt not that a careful examination in such cases would reveal a sensitive tubercle or clubbed extremity of a nerve.

CASE I. M. C. was admitted to the Indiana Hospital for the Insane in March, 1882. He was irritable, homicidal and suicidal; suffered great pain in the head—at one time so excruciating that he ran at the window-bars (an iron grating) with all his force, lacerating the scalp in many places. During the war he had been cut along the center of the right parietal by an exploding shell,

ploughing a groove into that bone; into this the scalp had healed into a firm adhesive cicatrix. With the intention of trephining in this case, a triangular flap was made, leaving the scar in the center. It was not possible to dissect the scalp up from the old wound, but required a chisel to separate the dense aponeurosis; the old groove was likewise thoroughly scraped. Finding no evidence of a fracture and that the direction of the flying fragment was not likely to have caused one on the inner table, further procedure was dispensed with. The wound healed in a few days with the result better than could have been expected. The pain was gone, and the patient while not yet fully recovered, is comfortable, works out of doors in the garden or on the farm, is more social, and is considered a "trusty" on the hospital grounds.

CASE 2. J. N., some eight years ago was near a boiler when it exploded; was struck by a fragment on the right parietal near its junction with its fellow and the coronal suture. After a period of unconsciousness, he recovered so far as to pursue his vocation, that of a farmer. Two years ago he had constant pain in the right side, also several epileptic convulsions followed by slight facial paralysis of the left side, and nearly constant twitching of the right face, neck, arm and hand.

In trephining this case, June 26, I found thickened and adherent dura, which was broken up with difficulty, causing at the time increased muscular contractions; but when I had cut a slit through the greatly thickened membrane and explored the convolution beneath, even to passing a probe through the cortex of motor centers, no convulsive action was excited; there was an escape of perhaps two drachms of fluid, and more after the opera-

tion, but the patient remains to this date free from pain, convulsions or paralysis.

In six other cases in which I have trephined in insanity from traumatic causes, a like result, varying in degree as the location varied, was noticed.

It is my opinion from the foregoing observations upon the anatomical relations of the dura mater to the skull, that :

FIRST, It is frequently the seat of disease or irritation produced by pressure, causing nearly all intra-cranial head-aches and neuralgias.

SECOND, That disease or injury of the dura through its relations with the vasa-motor nerves, largely commands the blood supply of the cerebral centers, thereby affecting psychical, motor and reflex functions.

THIRD, That reflex contractions produced by irritation of the dura mater are usually upon the same side of the irritation, but when the irritation is great, symptoms may be manifest upon both sides.

FOURTH, Great inter-cranial pain in the cerebral regions is not an index of disease of those hemispheres, but of the dura mater.

CEREBRAL CIRCULATION

IN THE INSANE.

Read before the Indiana State Medical Society, on May 11, 1887. Re-print from the INDIANA MEDICAL JOURNAL.

THE following observations made by the Pathological Society of the Indiana Hospital for the insane, are presented for the purpose of drawing out the observations that may have been made by others in autopsies upon persons not insane.

The usual method pursued in our examinations was to remove the calvarium, after noting any external peculiarities that might exist, and then making a study of the condition of the dura; and, after its removal, of the vascular membranes. The brain was then generally removed with great care, particular attention being given to dividing the carotid and vertebral arteries. If the arteries have not been previously injected with a hard injection, one of the vertebrals is ligated and the cerebral vessels injected direct; but, at times, to test the integrity of the various vascular regions of the brain, injections have been made into the vessels having origin from the Circle of Willis separately.

The class of persons examined was, without exception, chronic insane, some of whom were epileptic; and as we intend to confine this short paper to the circulation as there observed, I will state in brief that the general weight of the brain was above the average, bearing out the conclusions of Boyd (BRITISH MEDICAL JOURNAL,

Sept., 1876, page 425) when he found, in an examination of 2,050 brains, that the insane averaged higher than the sane—he giving the weights as follows: Sane males, 47.5; insane males, 48.2. Sane females, 41.9; insane females, 43.2.

There was the same general appearance of congestion of the vessels of the membranes that one finds in the various forms of death, either congestive types or anemic forms.

The first unvarying condition that has attracted most attention has been in the irregular arrangement of the vessels at the base of the brain, which may have been congenital anomalies, or have become so through complete or partial obliteration from emboli or other cause. Most usual is the diminution of one of the vertebral arteries.

The second peculiar deviation from the normal standard has been the great variation in the number of branches given off from the basilar—the post cerebral, Sylvian and cerebral arteries; this variation extending as much as twenty or thirty branches.

The third deviation is noted in the post communicating arteries, where frequently one is nearly obliterated and the other normal or enlarged, and in two cases absent.

The fourth, and one that exists as an index of acute disease at some time, is the obliteration of arterial capillaries or obstruction of some of the larger branches.

The fifth observation has been that the jugular fossa is larger and deeper upon one side, and that the foramen lacerum posterius is either greatly contracted, or is extremely large upon one side.

And sixth, that an examination of the interior and exterior of crania which I have collected of persons who have died insane, shows that there is an almost total obliteration of the various foramina, which admit the venous blood from without the cranium to the venous sinuses that collect the blood of the brain centers and carry it away to the great jugular vein.

Finally, the choroid plexus was usually cystic.

The result of the whole number of observations show that in these insane persons there has been an unvarying irregularity of the blood supply to some portion of the brain; that too much has been sent to some part, not enough to others; and that venous blood that should be admitted was perforce stagnated upon the surface.

We are forced to the conclusion that in the study of cerebral pathology too much attention has been given to the distribution of nerve fibres or the arrangement of nerve cells—too much study of cut micro-sections of cord or brain, and too little to the blood supply upon which the integrity and function of the cells and fibres depend. Elements of the cord and brain are not likely to become diseased from any cause within themselves; the mind is only deranged when the supply of blood in quantity or quality is changed.

The fact that the arterial supply is through terminal arteries, and that they form no anastomosis with each other, every branch acting independently and supplying its own section, center or convolution, is enough to point to the cerebral physiologist that his only way to a true localization of function of the various parts of the brain will be by most careful study as a pathologist. Thus Charcot, Durant and Hubner made a proud progress in a

field neglected by Brown-Sequard, Ferrier and others.

The brain may be likened to a garden of rare plants, watered by irrigation. So long as the water supply is equally distributed, each variety having the quantity due its special nature, then does it flourish in its beauty and perfection; but if the ditch become obstructed, or is made too large for some plants and too small for other varieties, a condition of drought and death will prevail on one hand or a bog will be formed on the other, making plant monstrosities, or growing wild and strange vegetation.

It will be remembered that insanity is a disease of mature life, although the brain of an adult weighs no more than at twelve to sixteen years old. Is it not because the ankylosis of the cranial bones at the base is not complete until about twenty-one to thirty years of age—particularly the basi-occipital and basi-sphenoidal, which give form to the foramen lacerum posterius, through which pass the jugular vein and the meningeal branches of the pharyngeal and occipital arteries and 8th pair of nerves? These bones do not become ankylosed until from twenty to thirty years of age—a period most common for development of the hereditary form of insanity.

There are many cases recorded in which twins become insane within a few days of each other; a case of this kind is now in our Hospital. Would such coincidences likely arise from any other cause than that at the same age the peculiarities of their osseous structure was completed and their circulation alike changed?

Kasloff, of the University of Kiew, has noted that many cases of mania of suicides show a great contraction

of the foramen lacerum posterior; and the few observations made at the Indiana Hospital for the Insane confirm it. One of these shows the further change of diminished carotids and all other cerebral arteries.

Prof. Nape, of Bonn, noted many years ago the frequency of heart disease with insanity, and several hundred examinations here show that about seventy per cent. of our insane have marked disturbance of the heart and disease of the larger arteries. It is not unlikely that inflammatory disease, affecting the endocardium, sending new-formed matter to the brain through the carotid, finds lodgement in the terminal branches, causing death of the locality thus arterialized and consequent insanity.

Retarded venous circulation, producing pressure on the inter-cranial nerves, may likewise produce derangements of the mind, as it frequently does of the respiratory organs through pressure on respiratory centers.

There is no doubt that tubercle deposited upon the capillary expansion of the cerebral arteries causes insanity just as sunstroke does, by depriving the cortical substance and ganglionic centers of blood supply. Syphilitic gummata and bone deposits act in the same way.

There have recently been published reports of ligation of the vertebral arteries for epilepsy, and the reports would indicate that it was a very successful treatment of that worst of all diseases; but I can not think in the end the results would be better than that doubtful procedure of ligation of the internal carotids. Sir Astley Cooper found, both in man and lower animals, that degeneration of the brain followed; and Norman Cheevers, in tabulating all cases of such ligation up to his time, remarks

that "when recovery followed tying the primitive carotids, a considerable number became hemiplegic, and perished from diseases of the hemisphere of the brain."

I have but one more point to make regarding the arterial circulation, and that is that the first branch given off from the middle cerebral, or Sylvian, is the anterior choroid, which forms within the lateral ventricle a most beautiful and curious plexus, in which plexus two-thirds of the cases show cystic formations from the size of the smallest bird-shot to that of a filbert. I am fully satisfied in my own mind, and think it can be demonstrated by the microscope upon any fresh specimen, that this plexus so called is glandular in structure and function, and that its ducts open into the so-called pineal gland, and like that body contain a *cervulus cerebri* and *corpora amylacea*. I will state that this brain sand and starch granules can not be demonstrated until the body is cold. How far the cysts may go to produce mental derangement can not be known until the practical pathologist has made many thousands of observations and careful records.

Finally, do not construe my remarks to mean that there is no insanity except from some derangement in the structure of the vessels of the brain. There are many forms of emotional disease where the mind becomes affected without permanent change, and which might be called sympathetic or functional insanity; or again where the blood has conveyed toxic substances instead of nourishment to the brain centers, as in the temporary insanity of alcoholism, opium, etc., or uremic or other blood poisons; but upon such cases we have had no opportunity to study in the dead house and laboratory.

Our firm conviction is that the more thorough study

of the venous and arterial circulation in disease of the brain will give to the progress and treatment of the insane a degree of certainty heretofore unknown. So long as we can not, by way of experimental test, ligate the arteries which supply different convolutions, lobules and special areas of brain matter, and thereby note what new, or what loss of function there is, we must take the next best method—that is, of having a thorough knowledge of the mental and physical peculiarities during the life of the insane person, and after death search out the abnormal vascular relation. This can only be done by injecting the vessels with some substance to distend them—(the brain will not hold more than one-and-a-half to two ounces of the material). After the injection each artery should be followed from its origin to its termination; in this way the dead branches, so to speak, can be discovered.

I call attention to one point which I do not think has ever been noted in the medical literature of this subject, and that is, that in normal condition, the vascular membrane dips deeply into all the convolutions of the great longitudinal fissure, completely dividing the anterior cerebral lobes, down to the corpus collosum; but in ninety per cent. of chronic insane this membrane is more or less destroyed, and the superior frontal and marginal convolutions of the right and left lobes are not only in contact but are so fused together that they can not be separated without destroying the convolutions.

The foregoing is a hasty sketch of our investigation in this special field of research.

CLINICAL CASES.

Three Cases of Insanity Treated by Removal of Depressed Bone.

From the AMERICAN JOURNAL OF INSANITY for April, 1886

CASE I.—W. P. H., of Laporte County, Indiana, was admitted to the Indiana Hospital for the Insane, March 5, 1884. He is a white, American born, thirty-five years old, five feet five inches in height, weighs 150 pounds, has auburn hair, face florid, and has the peculiar epileptic look.

His family physician, Dr. A. J. Mullen, gives the following history of the case:

"I have treated Mr. H. for traumatic insanity, caused, no doubt, by a fall from a scaffolding six years ago. Patient is sleepless; at times perfectly rational, at others exhibits strong suicidal mania and treacherous homicidal proclivities, sometimes so violent that he must be tied down.

"There is a depression of bone on the left parietal near the osculation of the right parietal and the occipital. He has lost his memory, and since the accident has had epileptic convulsions, and has become an inebriate and a morphine taker."

Such is a brief sketch in the doctor's own words. The fall referred to was from the top of a house to the ground, a distance of twenty-five feet, striking upon the corner of a brick.

Upon the admission of the patient to the hospital it was found that, beside the use of alcoholic stimulants, he had for years taken large doses of morphia to allay the

intense pain which he suffered, at all times in some degree, always increased in the evening, and fluctuating with atmospheric changes. The morphine was not discontinued when he came to the hospital, because his suffering was something intense, and his ravings and excitability could alone be controlled by that drug.

After a month's treatment, in which time all we could do in the way of improving his general health was done, a careful examination of his head was made, when a spot on the left side of the cranium corresponding to the portion which covers the lower third of the left occipitoparietal fissure and upper parietal convolution was found. The depression was quite perceptible both to sight and touch. The scalp was bald over a space of a silver dime, and showed evidences in the margin of the exit of two or three small sinuses, from which exuded a drop of half-dried pus.

On or about the 12th of April, having the patient under chloroform, we made a very free incision of crucial form across the depression; found the margin about the depressed bone much elevated by additional layers of new bone growth, which caused the depressed portion to appear as if sunken a quarter of an inch below the level of the cranium, but in reality the depression was about equal to half the natural thickness of the skull. With an elevator I got a purchase upon the outer table through the small opening of the discharging sinus before mentioned. With considerable effort I lifted this table from the inner one, which had a roughened, black appearance. The diploe was in a necrosed condition. The lower fragment or internal table was immovable, and seemed as firmly fixed as the normal skull. The sinuses did not

enter through the internal table. With a chisel I proceeded to cut out the depressed portion, which nature seems to have reinforced by thickening the margins of the bone below. The removal extended to the depressed bone and the thickened margin, exposing the brain at this part the space of a circle one inch in diameter. Over this wound the flaps of the scalp were drawn by three or four stitches and dressed with cold water dressing. The patient awoke from the chloroform with some sickness of the stomach, which half a grain of morphia allayed. He rested tolerably well, and found to his delight next morning that he was free from the pain and abnormal mental condition which had been his constant companion for years, since the moment of his fall from the house-top.

Now there is nothing peculiar about his treatment from that day until he left the hospital, on the 20th of September following. Two doses of morphia within twenty-four hours was the only medicine taken, and on the third day Mr. H. was up and about. The wound healed kindly, and as for the surgical part of the case, it ended here.

In review, we see before us a man whose history prior to a fall was that of a sober, quiet, industrious man. The fall is followed by a change in the whole nature; he becomes an epileptic, his natural affections are perverted, he endeavors to kill himself and his best friends—to kill anybody at times—and yet has periods of perfect sanity. He walks about, and occasionally works a little, for a period of six years, but finally the mind wasting under the disease, he becomes almost demented, and is sent to the hospital, more for keeping him from murdering some

one or killing himself than for curative purposes. A very simple surgical operation lifts a little tablet of bone that is depressed out of line of the internal surface little more than the sixteenth of an inch, and in forty-eight hours the patient goes forth a changed man. He no longer craves the narcotic to allay his pain, for the pain is gone. He no longer craves alcoholic stimulants, for the depression of spirits caused by his condition is removed. He has lost his suicidal mania and his murderous tendencies. He no longer raves, fights and swears, but is converted into as mild mannered a man as you would wish to see. After watching the case until the 20th of September, and finding that he remained in the same condition, he was discharged cured.

I have no desire to comment or draw conclusions regarding the psychical phenomenon caused by the slight depression, and the results of removal; it would lead into those fields of discussion "where fools madly rush, while angels fear to tread." Had Mr. H. committed murder during any part of that period of six years, he would have been sentenced to be hanged by the average "honest jury" of his countrymen.

CASE II.—John Greig, of Marion County, Indiana, native of England, admitted to the hospital July 30, 1885, æt. 47; machinist.

Three years before admission was struck on the head by a stove-lid lifter. He was taken home in an unconscious condition, and so remained for six hours, and was confined to his bed for several days. He was soon able to resume his work, which he continued to do after a fashion for six months. From this time on he became

negligent, careless about his clothing, lack of interest in anything; finally, melancholy and suicidal. August the 21st he was put under the influence of chloroform and a careful examination made which showed a small scar not larger than a grape seed over the parietal suture, an inch and a half from the coronal. A triangular flap was made and the scalp was found adherent to a very slight depression in the skull, about one-fourth of an inch to the left of the centre. I attempted to enter the point of the trephine into this depression, when a stream of blood gushed forth steadily, causing me to desist. The chisel was then taken in hand and a few blows with the hammer speedily dislodged the surrounding bone to the extent of half an inch wide by one inch long; a spicule of the internal table was found puncturing the dura, which corresponded in size and shape to a headless carpet tack. Water dressings and a bandage were the only applications to the wound, which healed by first intention; the patient was about the third day, and went home on the seventh day, "a new man," as he expressed it, and has been able to continue his work as a stove molder from that time.

CASE III.—Henry Stevens, age 23, American, was admitted to the hospital from the State prison, where he had served a term of three years. The following letter from the warden gives all the history we have regarding the case:

"Admitted to prison from White County; burglary; 4 years; age 17; single; weight 149 pounds; scar on left hand; bad scar on top of head—skull has been broken. While in the prison he was kept in his cell. Never talks."

Patient was admitted to the Indiana Hospital for the Insane "October 17th, 1882; age 20; diagnosis, dementia."

The observations made by physicians and attendants agree that he was dull, melancholic, slow to comprehend; countenance pale; sits constantly with eyes turned downward and lids nearly closed, as if to avoid the light; sometimes picks his clothing to pieces; is not filthy. If spoken to sharply he has been known to answer by a word or two, but irrelevant to the question. This has been known to occur twice or thrice in three years.

February 15th, patient was examined. He is a well-formed man, weighing perhaps 150 lbs., shape of head symmetrical, face pleasing in outline but totally devoid of expression, eyes nearly closed constantly. He came upon the table without resistance or any expression of anxiety. Inhaling æther there was a little excitement in which he spoke, saying "my father, my father," after which he was perfectly silent during the operation.

A well-marked depression was found beginning at the middle and in front of the coronal suture, where it was deepest (one-quarter inch) and extending obliquely backwards and downwards on the anterior left parietal, being two inches long and one inch wide. The depression in the frontal portion was one-quarter inch and faded away in the lower portion to a level with the normal bone.

An incision was made from a line that would be marked upon the skull, on the coronal suture (the left side) one inch from the junction of the parietal, extending an inch forward on the frontal and carried three inches downwards and back towards the outer third of the occipital, left side. The other was carried from two inches and a half to the right of the parietal, and an inch

below the right coronal, intersecting the lower incision, making a flap with a base of three and one-half inches and four to apex. Scalp closely adherent to depressed portion of bone. The trephine five-eighths inch diameter, so that a semilunar button was removed from the normal bone in front of the greatest depression. Then with a three-eighths inch gouge, such as is used by wood-carvers, all the depressed bone was chiseled away, exposing the dura for more than one inch in breadth and two inches long, crossing the longitudinal sinus obliquely.

The scalp was thick and the loss of blood about two pounds. The bleeding from the dura (not attached) was slight and arrested with a little pressure continued for two minutes. The hemorrhage from the diploe was free but was instantly arrested by pressing beeswax in which pulv. ferri persulph. had been worked.

The dressing was a compress and slight bandage. Upon coming from under the influence of the æther he said, "I want to vomit." In four hours he called for the urinal, and spoke clearly: "You said you would have to operate."

The second and third day his pulse ranged from 120 to 130; respiration, 20 to 24; temperature, 100 to 105. Took milk occasionally in small quantities; occasionally said, "I'm tired," "I'm too tired," "I want a drink." When given a drink of water, some fluid extract of digitalis having been in the same glass, he remarked, "It tastes more like medicine than water." On the fourth day I said, "Henry, do you want an apple?" The answer came quickly, "Yes; I will eat it too, you bet." I asked him, "Why don't you answer whenever you are spoken to, Henry?" In a moment he answered, speaking quickly,

as if wishing to be through with the task, "A man should consider before he speaks." At another time he spoke to the attendant for some neglect, saying, "I will report you to Mrs. Draper and give you a smack on the gob."

Two weeks have now passed and the wound is healed on the lower side, suppurating freely above. The patient is quiet and obedient, with decided tendency to be neat, keeping his bed in order, brushing off any crumbs that might fall, removing any soiled rags, etc.; is particularly modest, going by himself to the urinal, and covering himself from the sight of the attendant; his appetite is good, and he is recovering strength.

The case will be watched with extreme interest. The only fear I have is that there may be some counter-fracture or adhesion at the base of the skull.

In presenting these cases I will add that my conviction is, that depressions of bone, when occurring before the development of the insanity, should be removed. I prefer the chisel at all times to the trephine as being safer, particularly over large vessels.

NOTE:---I would be thankful for any statistics of trephining for the relief of insanity, by American superintendents, or others.

Causes of Rapid Increase of Brain and Nervous Disease in Recent Modern Times.

Read before Mitchell District Medical Society, at Seymour, Indiana,
December 15th, 1887.

“Man must be viewed as compounded of nerve, vessels, life, mind. He must not be isolated in regard to any one function. He must be studied as a symmetrical whole. One design, one ultimate law, unites all the parts of which he is composed. Their connection and interdependence must be clearly seen, understood, and, most important of all, acted upon.”---Tuke.

How long the world revolved with its countless and varied civilizations before nervous disorders were recognized as a special form of disease, has eluded the most careful research of the medical historian. The Scriptures gave us, now and then, the glimpse of an epileptic, and occasionally a character we moderns would call insane; yet there was no general recognizance of the milder grades of mental unsoundness until comparatively recent times. Neither in India nor in Egypt, nor in Greece nor Rome, could enough insane persons be found to more than fill the temples and oracles, where their strange talk and actions were revered as direct influences and messages from the gods.

It was since the dawn of the Christian era that insanity has had its full development, and made such steady growth that within a century and a half it has increased in Christian countries from one in three thousand to one in about five hundred, and is steadily on the increase, until finally we may reach the point, which Mr. Beecher

surmised, that we had better build asylums for the sane and let the so-called insane manage the world. What are the causes, real or apparent, of this increase of mental derangement and general nervous disorder? Are men changing in their physical constitution, with a growing tendency to develop organic and functional disease of the nervous system, particularly in the so-called civilized world? I would answer, in brief, that we may find sufficient cause if we examine—

1. The religious and moral conditions of the people.
2. Their education and occupation.
3. The accumulation of bad inheritances.
4. The modern cultivation of the disease, and the meager means used to suppress it.

I shall present these thoughts as the results of some years of observation, reading and contemplation, and will be pardoned, I hope, for not giving accurate statistics, which, where diseases are concerned, are so fallacious as to call a smile of ridicule to rise on the lip of the intelligent physician whenever he reads of the number of cases of typhoid fever and diphtheria in his own county, and reported to the proper officer.

The religious and civil laws of the heathen or pagan nations ever looked more to a healthful development of the people than the Christian portion of the world. To maintain a government under the former, it was requisite to have a large and healthy population—strength was the desideratum, combined with numbers managed by a few or one head or ruler. Such built the cities of Babylon, Balbec and Memphis, and made the Nile a highway through a continuous avenue of architecture, which for beauty and magnificence has never been equaled. The

same system of numbers and strength erected the cities and walls of China and of India so long ago that the civilization of Greece and Rome, centuries before the Christian era, may be looked upon as modern.

Among the ancients the same rules prevailed regarding the population that to-day would be found on a good farm or plantation managed with intelligence. The modern stock-raiser finds no profit in rearing lame, blind, feeble or vicious animals, and such are disposed of at once to prevent further breeding of the same kind, and thus the cumulative force of physical degeneration is wiped out. The ancient law of "life for a life" prevented the inheritance of homicidal tendencies; the law which subjected the new-born babe to official inspection did away with the deformed and the feeble during infancy; not only were parents and the State relieved of a useless burden, but entailment of future woes upon coming generations was whirled over the Tarpeian rock. The lepers were sent to the desert to die, and every unclean disease that could be inherited was abolished by the law of Moses. In China and Japan thieves were put to death, as were also liars and forgers; not only the perpetrator was killed, but his whole family destroyed—a radical cure of the disease, and a prevention of further propagation by generation. When the feeble were not destroyed by law of the tribes or nation, the very character of external conditions of life soon did its work in making a selection of survival of the fittest.

We can thus see that the ante-Christian civilizations were freed from that element of hereditary tendency to nervous diseases which is a prominent feature in our own time; and further, no matter how much the ancients

were addicted to drinking wine or malt liquors, they did not know of spirits by distillation, and could not convey the diseases that are the products of drinks containing fifty per cent. of alcohol.

The religions of the ancients were not of a kind to play upon the imagination of the people, bringing them into self-conflict regarding the questions of free will, eternal punishment, the condition of the future state, the communion with spirits, etc., which so harrows up the diseased brain of modern civilization.

There is little doubt that the American Indian, who believes that his conflict with the Evil Spirit is in this world but that death lands him in the happy hunting ground, is a thousand times freer from tendencies to mental disease than the most educated mind that tries to settle the vexed questions put before him by the theologians and the scientific free thinkers. Insanity comes not from a real belief or a real unbelief, in questions of religion, but it is in doubting.

The Christian era brought with it a religion of human sympathy; and no matter how relentlessly murderous and cruel it has been at all times, in its unnumbered murders and depredations under cover of the cross, there has ever been a morbid tendency to cultivate the poor, the sick, the lame, and blind—to keep them in charitable institutions, and to give them all civil rights. From this we have the original seeds of physical and mental degradation. During the past eighteen hundred years there has undoubtedly been a steady growth of nervous disease, which, as the world has grown more refined in its sensibilities, has cultivated the crop of constitutional tendencies to that degree that we now reap an abundant

harvest. It is like the "cheat" or "chess" in the wheat—a few grains at first nourished with the pure grain, and sowed each year, soon produces a field from which the original grain is in the minority.

But let us look at the increase of neuroses in our own country for the past two and a half centuries. America was settled by people coming from a stock of rather temperate, sturdy, sensible and industrious people of England, Germany, France and Spain; each having, however, something of a predisposition to certain diseases which had possessed their forefathers—gout and rheumatism, tubercle and venereal dyscrasia. They were persons of physical powers, perhaps to a high degree, and as they lived an outdoor life and upon simple food, the body was well developed, and the mind dealt with but a few subjects. But in time some grew wealthy, and the poorer grew envious and avaricious. A simple society grew and classified itself. Conditions of life changed, and a few centuries finds that the change was always from the simple to the complex—the outdoor life to indoor work; the log hut, with its wide chinks, to close-built houses; the fireplace changed to the flue and air-tight stoves and furnaces; day work into night work; a few months of schooling, when the "three R's" were taught, and taught well, into schools extending over three-fourths of the year, and when a multitude of studies created a mental indigestion, just as the prolonged hours of study caused a physical degeneration. As wealth increased the rich became richer, and the poor still poorer. But in a free country the poor had an ambition to at least imitate the wealthy. Their sons and daughters evaded physical labor—that sweat of the brow

which is a demand of nature to a healthy constitution—became unfashionable and abhorrent. The increase of factories, the increased facilities of commerce by steamship and rail, the augmentation of a thousand new channels of work, calls thousands of persons to night labor, and to labor leading to the development of latent disease, to be increased by generation. In addition to the fast mode of life involved by our modern American civilization comes the loosening of the chains and fetters of religious belief, with no substitute in an anchor of morality; the passions of men no longer controlled by either, are freely indulged to the sacrifice of their physical well-being. It is true that while marriage may be as frequent, yet maternity is not as frequent in the American family as in days gone by. Sterility in man is very common, the result of his own vices; and the wife who is not a mother, or but an imperfect one, is so because she is the victim of an unnatural system of education, occupation, and servility to fashion. The children who crowd our public schools to-day, the girls in particular, are deficient in physical strength and endurance, and more deficient in ability to control their whims and desires. Large numbers of our children, young men and young women, are deficient in their sight and hearing, deficient in their bone and muscle—living examples of accumulated evils, both physical and moral, imposed upon them by their parents or the generations before them. Is it to be wondered at that, among the causes of neurosis and insanity, inheritance can be traced in nearly fifty per cent., while direct and indirect syphilis, with tubercle about equal, make forty per cent., and alcoholism, injury, and other diseases the remainder. An alarming accumu-

lation of past errors, which are still in a living and flourishing condition in every American community.

But let us look a moment at our own State. Forty years ago we had one insane person to about fifteen hundred; to-day, it is estimated at one in five hundred, or less. Some of the New England States have advanced to one in three hundred. In the South, before the war, the slave population had but one insane in three thousand; since the war they have rapidly approached the condition of the whites, and now number one in about one thousand. Undoubtedly one cause of the great increase of insanity in our own, as in other States, is owing to the influx of foreign population of the lower grades, or pauper strata of life, who lack both mental and physical strength, who form communities where intermarriages naturally occur, followed by progeny. The combined influences of heredity and vice are at all times increasing, hence the increase in the number of defective minds. The injudicious use of quinine, morphia, chloral and other medicines, likewise are called upon to answer as a cause of neurosis terminating in insanity. Another mode of increase of insanity in our midst, is its cultivation through unwise laws. As for example, a man so deficient in intellect as to be unable to provide for himself, becomes a county charge, and during his residence in the poor-house marries some poor woman equally defective; the result is children who are more defective.

Or again, epileptics, of course finding no person of character who will marry them, unite with feeble-minded persons in marriage, producing offspring who become a charge to the State. Hundreds of examples of this kind

may be found in our State. There are instances of insane persons, cared for in our State Hospital, who have gone out and married persons about their mental equal, and whose children and grand-children to-day are provided for in the same place.

One cause of the apparent increase of insanity in our State is the perfect ease and freedom from disgrace and expense to the individual in finding a home at the State's charge—a freedom most wofully abused.

The selfish desires of cliques or parties interested in the financial part of the subject, is also a powerful element in increasing the number on a false basis. When all the county officers and the commission of insanity get exorbitant fees, they will number as many insane persons as possible; and the sheriffs, who gather a net fee of sixty dollars for conveying an insane person less than one hundred and fifty miles, is sure to hunt up all the suitable material within his bailiwick. It is from this cause that large numbers of simple-minded, demented and persons in second childhood, are numbered among the insane and put upon the State's charity.

Finally, can the increase of insanity in our midst be checked? Yes, by using rational means, through wholesome, stringent laws. Compel all persons who have means, to care for their own acute insane, just as they would for their own consumptives. Second, admit no one to a State Hospital without a trial by jury. Third, let all incurably insane, epileptics and feeble-minded persons be held in custodial treatment for life. Fourth, and most important, prohibit the marriage of any person who has been adjudged incurably insane, epileptic or feeble-minded. This method would in time possibly

decrease insanity.

The fees of county officers and lunacy commissions should be reduced to that degree that creating cases, so to speak, would be unprofitable.

As to the curability of insanity: Little thus far has been accomplished by the specialist over the power of the general practitioner, except so far as he may have means superior in the way of custodial management. It is the few cases of functional derangement that get well, while those insane or neurotic from organic lesions rarely do. To stop the tide of increasing neuroses with insanity will never be done by the specialist, it will never be done by the practitioner, it will never be done until the whole medical profession unite in demanding proper and efficient laws, and the erasing from the statutes the code that now fosters the disease.

GENERAL PARESIS.

Reprint from the INDIANA MEDICAL JOURNAL, May, 1890.

GENERAL PARESIS is a disease of modern civilization—a product of the nineteenth century, a disease to which Americans are tending in particular—and has been called by some foreign writers “the American disease.” For this reason the subject is of important interest to all medical men, and should be understood by the general practitioner, instead of being known almost solely within the walls of lunatic asylums.

General paresis is a term fixed upon to indicate a general paralysis of mental and physical forces. Commencing, as it does frequently, by increasing mental and physical activities, it finally ends in deranging and obliterating both. The popular name for this disease is “softening of the brain,” although in reality the brain may be both shrunken and harder than normal. Some medical men, without regard to the pathology, term it “paralytic dementia,” but there are several forms of dementia accompanied by paralysis.

General paresis is a disease of the whole nervous system immediately related to the centers of the brain and spinal cord. It is a tangling up, if I may use the expression, of the ultimate nerve fibres, at their origin, and other cells; psychical, vaso-motor and sensory functions are involved and gradually destroyed.

General paresis is rarely observed or noted until there are maniacal symptoms developed, and then the patient

is usually removed to the seclusion of some public or private institution, where ultimately death puts an end to the unfortunate sufferer. The general practitioner has thus but little opportunity to see more than a single phase of the disease, or but for a short time. General paresis is almost wholly confined to males; I have seen but one case in a woman.

I will take the liberty of reporting a single case, because it was a patient whose history I well knew, and one that I observed from the commencement of the disease till the autopsy revealed the secret of all its varied manifestations.

F. J. was thirty-seven years old, of sound and healthy parentage; he weighed, when in health, one hundred and eighty pounds. Until twenty-one years of age he never used alcoholic drinks or tobacco; from that period until he became a subject of the disease we are discussing he used both—drinking whisky generally, both regularly and in considerable quantity, but never to intoxication. He was naturally prudent and industrious, fond of money-making, which became a ruling passion. Two years ago he thinks he acquired syphilis, but was not treated for it. During the past year he quit the use of alcoholic drink and tobacco, upon the advice of Dr. Thompson, on account of some difficulty of vision. His business was one requiring active outdoor attention—driving, riding and walking. In April, 1889, it was observed by his friends that he walked with head bent forward, and from the erect he became stoop-shouldered, and his eyes were fixed more below than above the horizontal line. Occasionally he was heard talking to himself in his room, or laughing outright.

In July, 1889, while giving some directions to his men in the hay-field, he fell in what, as described to me, I would regard as an embolic convulsion, from which he rallied in half an hour with considerable nausea. In a few days he continued the supervision of his stock and farm interests, saying he felt as well as ever, except "slight dizziness in his legs below the knee," and an occasional dull pain in the back of his head.

About the first of August I could detect a slight tremor about the lips and alia of the nose when he would laugh; his voice had a higher pitch and a singing sway to his sentences. His memory was so unreliable as to recent events that he kept memoranda of each division of his business in a separate little book, which had its special pocket. His handwriting in these books shows a gradual change from a beautiful chirography in July, to an indecipherable scrawl in his last memorandum in December.

Early in September he astonished his foreman by stating it would take about six weeks to dig the potatoes from a five acre plot, notwithstanding five men were digging; and he guessed they would have about ten thousand bushels. In guessing the weight of cattle he had formerly been an expert, but he made a statement that a certain animal must weigh three thousand pounds that in reality would not tip the beam at eight hundred.

From September first I saw the patient almost daily, and could notice his gradual tendency to magnify everything, taking always most hopeful views; insisting that he was never so strong in his life—that he weighed more, could eat and drink more than any man about—the medicine I gave always did just the right thing, etc.

The latter part of September I sent him on a rather long and rough sea voyage of six week's duration, and he returned with some general improvement as to his locomotion, but I noticed a glosso-pharyngeal tremor when he laughed, protruded the tongue or swallowed anything. Up to the middle of October I was unable to convince either himself or his friends that he was afflicted with a fatal malady, and he continued his business up to the 19th of November, never making mistakes, handling large sums of money, etc.; but his mental powers were slow and well studied, like a man who knows he is drunk and likely to disclose it by a stagger or foolish speech. At this time occasional difficulty of speech was noticed, and he could not protrude the tongue, which, as he said, insisted in turning down and bending on itself.

On the 19th of November he came to my residence about 10 P. M., rang the bell with vehemence, and when admitted grasped his throat in an excited manner and made great effort to speak. I told him to lie down and not try to talk. His pulse was normal, pupils dilated evenly, surface cold, temperature sub-normal. After resting half an hour he could talk quite well, but with a tendency to talk fast and laugh at things he told, which were not in the slightest degree funny. I put him to bed after a hot bath, and he rested well that night. The next day he told me he wanted to stay right with me until he got well, insisting upon it that he would get well, and laughing a wild laugh at the idea of his having an incurable disease when he "never felt better in his life."

I had fully made known to him the nature of his malady, and he spent the next two days in the solitude of his room, talking and laughing at times to himself,

but mostly writing. The finale of his two days' labor with pen were ultimately concentrated on two pages of letter paper—the result of more than a hundred pages he had written upon. On those two pages he wrote an exact statement of all his property, real and personal; loans and mortgages were numbered, and the locality of his papers described. This was directed to his already selected administrator, and notwithstanding the protest of his nurses he started out in the rain at 8 P. M., running some six squares to put the letter in his hands. This he did, and without speaking ran away again. His process of reasoning evidently was: I cannot trust my memory longer, nor my limbs to carry me; nor can I trust so important a document to the mails or attendants.

After this one effort the mind gave way; he was never able to write an intelligent line or word; he never referred to anything in connection with his business again. From this period there developed the greatest excitement, he continuing to pack and unpack his valise (a heavy leather one). He thought the steel mountings were gold; every button, tack or pin was gold, he talking rapidly of his great find; he never sat down a moment; he was gathering gold and packing it away in vaults; he was going to make everybody rich, build houses, street railways, ships, whole navies to carry his gold. If an old friend came in he would, perhaps, notice him an instant and say "How are you, Sam?" and then go on packing the gold in his valise, or pointing out the heaps of ingots and gold bricks in the fireplace. If he became angry, as he did frequently, at his nurses, he was ready to kill them on the impulse of the moment, but his attention could be instantly diverted by pointing to something out

of the window or to some gold he had dropped on the floor. He could not be induced to eat—he had no time, he would eat as soon as he got the gold gathered in, was a constant excuse, and deferred until forced to drink soup or coffee. Solids he could not swallow, although he made the attempt often.

Sleep was only procured by giving from sixty to one hundred and twenty grains of chloral in beer at night; no other hypnotic ever produced sleep. At first he would sleep six hours, but gradually that was reduced to not more than one or two in twenty-four. By the middle of December he had worn out his valise, dismantled the gas fixtures, refused to wear any clothing, taken up his carpet, drawing the tacks from the floor; and all particles of metal visible to the eye were diamonds. He knew gold no longer; he gathered diamonds night and day, talking of his wealth and his vast intentions to make all poor people rich. He would not tolerate the presence of an attendant or nurse, and, when reduced from one hundred and eighty to eighty pounds weight, would square off, à la John Sullivan, boast of his great muscle, legs and arms, and his power to whip any man living.

By the first of January the situation had only changed in his desire to go down town, etc.; he became vulgar and profane, which was not his habit in health; would tear up all bedding, burn the clothing, etc., to purify his diamonds. The sphincters became relaxed; he would stay upon the bed most of the time during the last half of January, and death came so quietly from exhaustion that one could not tell when he died, January 30, 1890.

The autopsy showed a normally thick skull, without color of blood in the diploe. The dura was adherent to

the calvarn, and removed with difficulty. Over the dura could be seen the super-cerebral veins, much enlarged and varicose, but instead of six to eight pairs only three were found, and those only from the median surface of the hemisphere. There was a marked diminution in the calibre of the longitudinal sinus just at its junction with the lateral; this was caused by numerous strands and trabeculæ (*chordia Willisii*) forming a firm network, binding the sinus down at that point. The removal of the dura could not be made without tearing up the pia and arachnoid in various spots, particularly in the frontal lobes.

From the fact that the death of the patient was directly from inanition, little blood was found in any of the vessels of the cerebrum, and that thin and almost colorless. that portion of the brain receiving its blood supply through the anterior cerebral artery presented areas of softening, in both white and gray matter; the region supplied by the middle cerebrals was normal in density, but the arachnoid and pia were studded over with gummatous exudations; the post-cerebral region was more dense, in fact in a condition of sclerosis. Sections of the pons varolii showed a great number of pigment giant cells—a proliferation of new matter so dark that it resembled a black walnut crescent, in white mosaic section. Spider cells were abundant; they are described by recent observers as almost pathognomonic of the disease. The ventricles were nearly empty, the posterior portion of the cerebellum softened.

The above case shows origin, course, symptoms and pathology in brief of what I have been able to learn by observation of many cases of general paresis, or from

reading the observations of others. Every case I have known had a history of alcoholic or syphilitic poisoning, and every case I ever saw or heard of was fatal. Although Kellogg, Brush and Bevin Lewis make a distinction between these insanities, I regard the cause as primarily a change in the blood; second, in the lumen of the vessels; finally, a diminution of blood supply in all of the cerebral arteries.

The symptoms of this disease are plainly divided into two classes—first, mental or psychical; second, physical.

I. PSYCHICAL SYMPTOMS.

1. General restlessness, unsteadiness of mind, impairment of attention.

2. Change of disposition, neglect of social observances.

3. Impairment of reflective powers, no logical or systematic development of thought.

4. General exhaustion of thought, numerous and extravagant desires.

5. Failure of memory—of recent events.

6. Delusions of wealth and power.

7. Hallucination of senses in which remembered scenes are so vivid as to spread to the periphery.

8. Maniacal restlessness and excitement, impulses to peep into actions.

9. Increased mental weakness, incoherent repetition of false ideas.

10. Further impairment of memory.

11. Complete fatuity, coma and death.

II. MOTOR SYMPTOMS.

1. Persistent contraction of the occipito-frontalis muscle, and some dilation of the pupils, causing the eyes

to be widely opened and the forehead wrinkled, and giving an expression of surprised attention to the face.

2. Persistent contraction and frequent tremors of the zygomatic muscles, giving a pleased and benevolent expression of countenance.

3. Slight muscular restlessness and unsteadiness.

4. Impairment of the power of executing fine and detailed movements, so that manipulative skill is lost, while movements en masse are still well performed.

5. Fibrillar tremors of the tongue and some loss of control over its movements, so that it is protruded with difficulty; is rolled about when protruded, and is suddenly withdrawn.

6. Twitchings of the nostrils and upper lip, with frequent tremors of the latter.

7. Impairment of articulation, which is thick and wanting in distinctness.

8. An alteration in the voice, as well as the thickness and hesitancy in speech.

9. Loss of control over the combined movements of the hand and wrist, so that the handwriting generally deteriorates.

10. Changes in the pupils, which are at first irregularly contracted, and then become irregularly dilated.

11. An alteration in gait, which becomes unsteady; the more complex movements of the thighs, leg and foot, and the balancing of the pelvis on the hip joints, being performed with difficulty.

12. General muscular agitation and restlessness.

13. Gradual loss of power in the muscles of the face, tongue, neck and limbs.

14. Spasmodic contraction of the masseter muscles,

causing grinding of the teeth.

15. Convulsive seizures, most marked on one side of the body, and followed by transitory hemiplegia.

16. Loss of control over the sphincters.

17. Complete prostration of muscular strength, helplessness and difficult deglutition.

18. Contractions of the muscles of the limbs, and paralysis of the muscles of respiration.

General paresis is only apt to be confounded with locomotor ataxy or syphilitic general paralysis. By contrasting the symptoms the difference is marked.

GENERAL PARALYSIS.

Runs its course in a few years.

Commences with mental symptoms.

Is attended with libidinous ideas.

The motor symptoms are secondary in the order of time.

It is only rarely complicated with pelvic difficulties.

There often is great violence.

TRUE GENERAL PARALYSIS.

Prodromic stages.

Exalted notional, numerous and varied, and relatively exalted according to the position in life.

Speech is tremulous and jerky.

Tremor of hands and lips.

Preservation of strength.

Pupils are apt to be contracted.

None.

None.

Transient aphasic attacks.

Spontaneous remissions.

LOCOMOTOR ATAXY.

Is slower usually, and may last ten, even twenty years.

Commences with pains in the distal nerves.

Is attended with absence of sexual feeling.

The motor symptoms are the primary phenomena.

Pelvic symptoms are the prominent feature.

The mental phenomena are imbecility and impaired memory.

SYPHILITIC GENERAL PARALYSIS.

Absent.

Rare or absent.

Speech is thick.

Absent as a rule.

Paresis or actual paralysis.

Apt to be open or wide.

Palsy of third or of other cranial nerves.

Headache, nocturnal.

More serious aphasic attacks.

Progressive except under treatment.

Trephining for Paralysis of the Third Nerve.

Reprint from the JOURNAL OF NERVOUS AND MENTAL DISEASE, May, '92

OCTOBER, 1889, Michael Griffin, aged 38, a blacksmith in R. R. shops, was injured, a hammer flying off the handle in the hands of one of his helpers; the hammer weighed three pounds, the distance projected about four feet. The blow was received about the center of the right half of the frontal bone.

The immediate result of the blow was to cause falling upon the face and unconsciousness for half an hour. The man returned to work in a few days, but he was obliged to give up. He was sent to St. Vincent's Hospital under charge of the company's surgeon, where he remained a few weeks, suffering intense pain in frontal region; the right eye began to bulge outward, the lid could no longer be uplifted, and delusions of sight and hearing rendered him mildly insane, of melancholic type.

During the following February, 1890, he applied to Dr. J. L. Thompson, the well-known oculist, for advice. Dr. T., recognizing complete paralysis of the third nerve, resulting from traumatism, and seeing the man's pitiful mental condition, sent him to me. I advised trephining for exploration, as a last resort, and on April 3, 1890, the operation was performed. My desire was to enter the brain on a level with the base of the right frontal lobe, where it rests on the orbital plate.

An incision was made over the center of the frontal bone, drawn down to the glabella, thence through the brow to the patient's right. This triangular flap being

lifted, a one-inch trephine was used, the lower and outer edge of the saw resting on the superciliary notch.

When the button was removed which opened up the frontal sinus, there was a decided odor of ozæna, and the whole mucous membrane was of greenish-blue color. Continuing with a half-inch trephine through the posterior wall of the sinus, the lower edge of the opening was just on a level with the orbital plate; the dura was slit transversely and lifted, showing a fracture line in the plate. There were evidences of thickening of the dura, with slight exudation of jelly-like plasma under it. A probe was passed two and a half inches along the surface of the plate in the line of fracture without finding any loose, which I expected would be the anterior clinoid process, or near it. The brain did not appear unnatural in color or in motion. No evidence of tumor or abscess presented; but, to make sure, I passed a three and a half inch aspirating needle upward through the first convolution, about the coronal suture; then lower down and outward through the second (pointing to center of the temporal bone). Another thrust of the needle through the third convolution, on a plane half inch above the orbital plate, but neither pus nor bone spicula was found. After washing thoroughly, made a free opening at the inner and lower angle of the sinus, or rather enlarged the natural one, giving a free drainage through the nose. I did not replace the button of bone—I never do where it is so small—but closed the flap down, holding it with three interrupted sutures in the brow and adhesive plaster across the forehead; then, with a compress and bandage, hermetically sealing the opening.

The patient took less than one fluid drachm of chloro-

form, and that just before the incision was made. While arresting the hemorrhage and applying cocaine to the edges of the flap, he asked me not to give him any more chloroform. During the remainder of the operation he talked to me, feeling no pain during the trephining; but in scraping the diseased membrane of the sinus there were painful sensations to the teeth and forehead (from the branches of the fifth), and stinging sensation in the nose. The passage of the aspirating needle into the convolutions of the frontal lobe caused no sensation, except the second thrust the needle (being three and a quarter inches, pointing to the center of the temporal bone) caused sensations of twitching of fingers on the left hand.

The patient sat up the following, and was able to go to his home the third day; for ten or twelve days a profuse discharge of mucous and blood came from the nose.

The patient lost at once the intense headache that had made him walk the floor almost constantly, and prevented sleep, except when taking large doses of morphia. His melancholy departed during the operation; he became even cheerful and jocose at the final stitch. His eyeball resumed its normal place in the orbit, and in a week could be moved inward. In three months I sent him to the oculist, who wrote me the following note:

INDIANAPOLIS, August 3, 1890.

W. B. FLETCHER, M. D.

DEAR DOCTOR:—I have just now most thoroughly examined Michael Griffin, whom you trephined some weeks ago for paralysis of the third pair of nerves. I am really astonished at the result. When I examined him before the operation he had all of the symptoms of complete paralytic ptosis; the eye turned out, down, and was more protruded than the other, and had a largely dilated

pupil. His vision at that time was $\frac{20}{C.C.}$, and he had much heavy distress on that side of the head. Now his upper lid moves as easily as the other, and the eyeball moves readily in every direction. The pupil, however, is just the least particle larger than the left eye and does not respond to light as readily, quite, as the left— $V. = \frac{10}{C.C.}$ right; $\frac{20}{XXX}$ left. I notice that the right optic disc is whiter than the left, and there are not so many nutrient vessels on it, which shows the effect of the long continued pressure upon it.

When I say that I am astonished at the result, I mean that I could hardly have expected such a result from the operation of trephining, as I feared that one could not reach far enough into the brain by operative procedure to effect anything in the region of the origin of the third pair. The operation was remarkable.

J. L. THOMPSON.

It is now nearly two years since the operation, and the patient is as well as ever; there is no mark by which one could detect an operation had been performed.

I am induced to publish this case because I find no other instances of trephining for paralysis of the third nerve. My exploratory opening showed what I did not anticipate, viz., diseased sinus. I found a fracture and results of exudation and inflammation, but neither dead bone or abscess. Just what took the pressure or irritation off the nerve I do not know. If the sinus was diseased from the blow, or the paralysis of the third nerve resulted from the diseased sinus, one cannot tell. These matters are at least food for thought, particularly to the ophthalmologist and alienist.

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